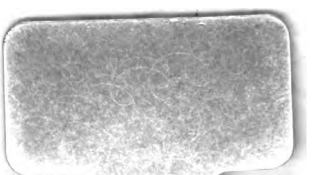

"LET US TO BILLIARDS."—*Shakespeare.*

BILLIARDS MADE EASY.

WITH THE SCIENTIFIC PRINCIPLES OF

THE SIDE-STROKE AND THE SPOT-STROKE FAMILIARLY EXPLAINED.

BY

"WINNING HAZARD."

ILLUSTRATED BY PRACTICAL DIAGRAMS.

With a Chapter on Bagatelle.

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PREFACE.

MOST works on Billiards are either too technical or too elementary. An attempt is here made to meet the requirements of all players, whether tyros or professors; and to produce a treatise which, while sufficiently scientific, is thoroughly practical. Such diagrams only as are actually necessary have been introduced, though they might have been multiplied indefinitely, without showing more than they really do show—the principle of the play and of the several hazards.

Captain Crawley's rules for the various games—as adopted at the principal clubs and public rooms—are inserted by special permission; as are also some few of that well-known writer's remarks upon the best methods of Billiard-play.

A Chapter on Bagatelle, with the several games played on the Bagatelle-board, is also included.

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BILLIARDS MADE EASY.

CHAPTER I.

THE GAME.

THE Game of Billiards stands at the head of what may be called Domestic Athletics, for it combines within itself the elements of science, chance, and amusement.

Of the history of Billiards it is not necessary here to speak; for, notwithstanding the fact that much has been written on that topic, there is really very little known that is worth the telling.

The first English writer of authority on Billiards was E. White, Esq., who, I think, introduced the axiom, since adopted by all the players and writers, about the equality of angles.

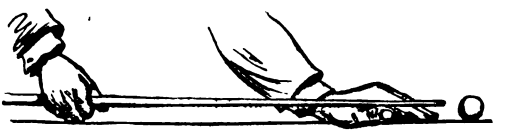
A curious error is prevalent with regard to the book often mentioned as "White on Billiards." Many players—and some few writers—evidently think that the work is still in print, and that it contains certain and authoritative directions on the modes of Billiard-play. There never was a greater mistake. White's treatise was mainly a translation of a French work, with additions from the "Instructions how to play at the gentile, cleanly, and most ingenious game at Billiards," contained in Cotton's "Compleat Gamester," issued many years before. White, whose book was published in 1807, makes no mention of the side-stroke, for it had not then been discovered; nor did he know anything of slate-topped tables, india-rubber cushions, or leather-tipped cues, for they were not yet invented. All he knew about Billiards was confined to the simple white ball games—the conjunc-

tion of them with carambole games, our present Billiards not being then introduced. The axiom about the equality of angles appears in the French treatise thus: "L'angle d'incidence de la bille contre une des bandes du Billard est égal à l'angle de réflexion;" and of which White observes, "Nothing connected with the game of Billiards is more essentially important to be kept in mind." White's treatise has been out of print for nearly half a century. The poor little modern compilation sometimes mistaken for the real "White on Billiards" possesses no scientific value, and no manner of authority.

Billiards is played on a green cloth-covered table with india-rubber cushions and six pockets, and the object of the game is to drive one ivory ball against another, so as to lodge one or the other in a pocket, or to make cannons, by striking two balls successively with a third ball, by means of a leather-tipped cue. The table is of various dimensions—from that of the regular twelve-feet-by-six, for public rooms, to miniature tables of four-feet-by-two, for drawing-rooms and parlours. In every case the length of the table is double that of its width, *within the cushions*. Every table, whatever its size, is furnished with a semicircle, called the baulk or striking point, from which the game is commenced; and three little spots, the upper one known as "the spot," the centre as the "middle spot," and the lower one, midway between the cushions on the straight baulk line from which the semicircle is struck, called "the baulk spot."

These preliminaries understood, let us see how the ordinary game of Billiards with three balls is played.

But before the tyro can play a game, it is necessary that he should know how to strike a ball. Well, he places a ball on the table, takes the cue in his right hand, and lays his left on the table—just behind the ball. Then, raising the knuckles up so as to form what is called "a bridge," and placing the cue between the thumb and the fore-finger, the tips of which rest, closed, on the table, he draws back the cue a little, takes aim, and strikes the ball before him, thus :—



THE BRIDGE—MANNER OF STRIKING THE BALL.

The distance between the ball and the cue's point should be about six inches for ordinary strokes, and the stroke itself should be made with a free impulse of the arm from the elbow. For harder strokes greater force is required, and then the blow should be made from the shoulder with the full swing of the arm. The cue should be grasped and not held lightly between the finger and thumb; though for some very fine and delicate hazards a much less firm grasp is necessary. In your preliminary practice learn first to strike the ball in the centre of its circumference as it presents itself to the eye, and drive the ball in a straight line before the cue along the table. Be careful to keep your cue well down, so as to barely clear the cushion, and avoid all see-sawing and moving your cue from side to side.

For high, low, and other strokes, a slight modification of this manner of holding the cue and making the bridge will occasionally be required; but for all ordinary hazards and cannons the well-raised bridge and the steady grasp of the cue will be found sufficient.

For the information of the tyro, I may now explain that by a "hazard" is meant the driving a ball into a pocket by means of the cue-ball. You strike the cue-ball with your cue against another ball, at any part of the table; if you succeed in lodging the "object-ball"—which is the ball played upon and hit with the cue-ball—into a pocket, you make what is known as a Winning Hazard. If your cue-ball fall into a pocket after contact with the object-ball, you then make a Losing Hazard; and if you strike two balls in succession with the cue-ball, you make what is called a cannon.

From Hazards, Cannons, Misses, and Forfeitures, the points of the game are counted. For every Winning or Losing Hazard made with or off the red ball—that is to say, every time you force the red ball into a pocket, or hole your cue-ball after striking the red ball with it—three points are reckoned towards your game; and for every Winning or Losing Hazard made with or off the white ball, two points are scored to the player. And as to the manner of making a hazard, one invariable rule is to be observed. Take a glance at the cue-ball, and then with your attention fixed on the object-ball, draw back your hand and make your stroke with ease and dexterity. Having once got the correct sight, make your stroke without hesitation. Nothing is so destructive to good play as indecision; and unless you begin well, it is impossible ever to become a good player. Freedom of exe-

cution is only to be acquired by practice, and, whatever you do, avoid the common habit of hitting your ball too hard. A jerky stroke or a pushing stroke will not do to begin with; what you want is a free, smooth delivery of the ball, without too great a drawback of the cue before striking.

THE GAME OF BILLIARDS.

The game of English Billiards—Billiards *par excellence*—is played with two white balls and one red ball, by two persons, each with a white ball. In order to distinguish the one white ball from the other, a small black spot is inserted in the ivory of what is known as the "spot ball," and the other is left plain. The red ball is placed on "the spot"—which you will remember is at the upper end of the table—and the first player either strikes it or gives a miss in or out of baulk. The second player then goes on and plays for a cannon or hazard; and if he score, he plays again till he fails to pocket a ball or cannon. Then the other plays, and each takes his stroke alternately, on the failure of his opponent to score; and so the game proceeds till the required number of points —generally fifty—is made; the player who succeeds in first scoring the number agreed on winning the game.

Perhaps the best plan, before we enter upon the scientific principle of Billiards, will be to give the rules of the English game.

THE LAWS OF BILLIARDS.

I.—The game commences by stringing for the lead and choice of the balls.

[If one ball in stringing strike the other, the players must string over again.]

II.—The red ball must be placed on the spot, and replaced there when it is holed, or forced over the edge of the table, or when the balls are broken.

III.—The player who makes one stroke in a game must finish that game, or consent to lose it.

IV.—The striker who makes any points continues to play until he ceases to score, by missing a hazard or otherwise.

V.—If, when the cue is pointed, the ball should be moved

without the striker intending to strike, it must be replaced; and if not replaced before the stroke be played, the adversary may claim it as a foul stroke.

VI.—If a ball spring from the table and strike one of the players or a bystander, so as to prevent its falling on the floor, it must be considered as off the table.

VII.—When a ball runs so near the brink of a pocket as to stand there, and afterwards fall in, it must be replaced, and played at, or with, as the case may be.

[The challenging a ball, as in bagatelle, is not allowed in Billiards. If the ball roll into the pocket before the striker makes his next stroke, he claims it, and the points made by it must be scored.]

VIII.—When the player's ball is off the table (in hand), and the other two balls are in baulk, the possessor of the ball in hand cannot play at the balls in baulk, but must strike his ball beyond the semicircle, or play at a cushion out of baulk.

[In such a case, the player may use a butt, or play with the butt-end of his cue, and strike at a cushion out of baulk, so that his ball on its return may hit the balls in baulk for a cannon or hazard.]

IX.—A line ball cannot be played at by the striker whose ball is in hand.

[A *line ball* is when the centre of the ball is exactly on the line of the baulk, in which case it is to be considered in the baulk, and cannot be played at, except from a cushion out of the baulk.

X.—All misses must be given with the point of the cue, and the ball is to be struck only once; if otherwise given, the adversary may claim it as a foul stroke, and enforce the penalty—make the striker play the stroke over again, or have the ball from where it was struck the second time.

[It is usual, however, to allow the player to give a miss in baulk, with the butt-end of his cue, when he plays his ball to the top cushion.]

XI.—No player can score after a foul stroke.

[The following are *foul strokes*:—If the striker move his ball *in the act of striking*, and fail to make a stroke; or if he play with the wrong ball; or if he touch his own ball twice in playing; or if he strike a ball while it is running; or if he touch another ball with his hand; or if his feet be off the floor when playing. The penalty in all these cases is losing

the lead and breaking the balls. Enforcing the penalty for a foul stroke is entirely at the option of the adversary.]

XII.—If the adversary neglect to enforce the penalty for a foul stroke, the striker plays on, and scores all the points that he made by the foul stroke, which the marker is bound to score.

XIII.—*Two* points are scored for every White Hazard, *two* for every Cannon, and *three* for every Red Hazard.

XIV.—When the red ball is pocketed, or off the table, and the spot on which it should stand is occupied by the white ball, the red must be placed in a corresponding situation at the other end of the table; but if that should be occupied also by the other white ball, the red must be placed on the spot in the centre of the table, between the two middle pockets; and wherever it is placed, there it must remain until it be played, or the game be over.

XV.—If the striker miss the ball he intended to play at, he loses *one* point; and if by the same stroke his own ball run into a pocket, or off the table, he loses *three* points.

[That is to say, his opponent scores the points forfeited by the miss or the count. All misses count towards your adversary's game.]

XVI.—If the striker force his own or either of the other balls over the table, after having struck the object-ball, or after making a hazard or cannon, he neither gains nor loses by the stroke, and his adversary plays on without breaking the balls.

XVII.—If the striker wilfully force his ball off the table without striking another ball, he loses three points; but if the ball go over by accident, he loses one point only for the miss.

XVIII.—If the striker play with the wrong ball, and a cannon or hazard be made therewith, the adversary may have the balls broken; but if nothing be made by the stroke, the adversary may take his choice of balls for the next stroke, and with the ball he chooses he must continue to play until the game is over.

XIX.—The playing with the wrong ball must be discovered by the adversary before the next stroke is played; otherwise no penalty attaches to the mistake, and the player goes on and scores all the hazards he makes.

XX.—If the striker's ball be in hand, and the other two balls within the baulk, and should he, either by accident or design, strike either of them, without first playing out of the baulk, his adversary has the option of letting the balls remain as they are, and scoring a miss—of having the ball so struck replaced in its original position, and scoring a miss—of making the striker play the stroke over again, or of calling a foul stroke and break the balls.

XXI.—If the striker's ball be in hand, he must not play at a cushion within the baulk in order to strike a ball that is out of it.

XXII.—When a ball is on the brink of a pocket, if the striker in drawing back his cue knock the ball into the pocket, he loses three points.

XXIII.—In giving a miss from baulk, should the player fail to strike his ball out of baulk, his adversary may either let it remain so, or compel him to play the stroke over again.

XXIV.—When the striker, in giving a miss, makes a foul stroke, his adversary may claim it as such, and enforce the penalty. In such a case, the point for the miss is not scored.

XXV.—No person is allowed to take up a ball during the progress of a game without permission of the adversary; but a ball in play that is moved by accident must be replaced, as nearly as possible.

XXVI.—*The striker loses the game* if, after making a stroke, and thinking the game over, he remove a ball that is in play from the table.

XXVII.—Neither the player nor his adversary is allowed to obstruct the course of a ball in play, under the penalty of a forfeit for a foul stroke and the breaking of the balls.

XXVIII.—If the striker's ball, when it has ceased running, touch his opponent's ball, no score can be made, and the latter must break the balls.

[The striker in this case may run his ball into a pocket, or make a cannon by playing it on to the third ball. If he do either of these, the balls must be taken up, and the red placed on the spot where the adversary plays from baulk, as at the beginning of the game; that is to say, he breaks the balls. But if the striker fail to cannon or pocket his own ball, all

the balls remain as they are when they cease rolling, and the other player goes on as usual.]

XXIX.—All disputes are to be settled by the marker, or by the majority of the bystanders.

FOUR-HANDED BILLIARDS.

This is ordinary Billiards played by four persons in sides of two. It is usual either for each player to go on in turn, so soon as the one fails to make a hazard or cannon; or for a player on each side to continue playing till he is put out by a Winning or Losing Hazard, by giving two misses without an intervening hazard or cannon, or by running a *coup*. Of course the player must make a stroke before he can be put out, notwithstanding the length of his opponent's break. The rules are the same as in Billiards, except that each partner may advise the other, so long as he does not touch or place his ball or either of the others'. For four persons it is a more lively game when each takes his turn, without waiting for the player on the other side making a hazard.

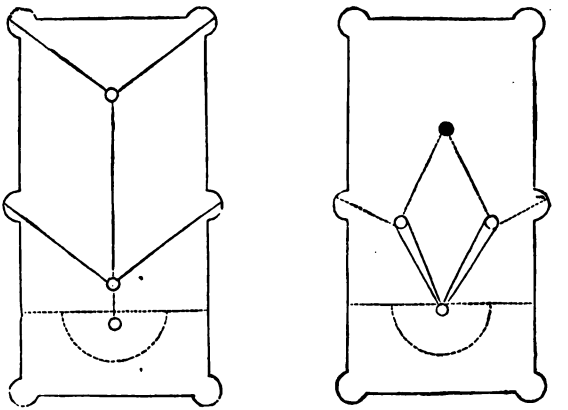
CHAPTER II.

THE NATURAL ANGLE—HOW TO MAKE THE STROKES—STRENGTHS.

HAVING made himself acquainted with the *modus operandi* of Billiards, the tyro has next to learn a few of its leading principles.

THE NATURAL ANGLE.—The first and most important principle—the key, in fact, to the whole art of Billiard-play—is to be found in the *natural angle* of about forty-five degrees, as shown in the two diagrams here introduced. If you place a ball in either of the positions indicated in the first diagram, and then play at it from baulk, with moderate strength, your own ball struck full will fly into the pocket. Remember,

moderate strength only is required; just as much force as will cause the two balls to diverge at the Natural Angle. *The*



NATURAL ANGLES FOR HAZARDS AND CANNONS.

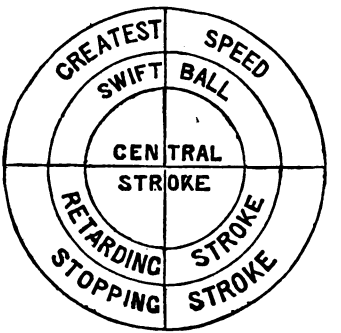
harder the stroke, the wider the divergence between the balls after contact. Never forget this. Practise these strokes over and over again, till you can make a Losing Hazard in either of the pockets with neatness and precision.

Then try the hazards and cannons shown in the second diagram. To make the hazards—still with the Natural Angle—the object-ball must be struck on the side nearest the pocket. To make the cannons, the object-ball must be struck on the side nearest the centre. These are the most easy hazards and cannons on the table; and till they can be made with certainty, you should not practise any other strokes. It will, perhaps, be as well for you to begin with the hazards, and when they are accomplished, you can attempt the cannons. The Natural Angle has nothing to do with the side-stroke; that is explained in a subsequent chapter. These strokes, and others of similar character, present themselves in every game, and when you can make them easily, you will have arrived at a point in your Billiard-play which some, who

nevertheless consider themselves fair hazard-strikers, never reach.

HOW TO MAKE THE STROKES.—Having acquired an easy and uniform method of playing the ball from end to end of the table, the next point to consider is the various ways of striking the ball, so as to make it travel in the direction and at the pace required by the player.

A ball struck in the centre of its circumference travels at a

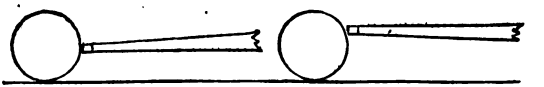


certain speed, according to the force of the blow. When struck above its horizontal centre, its rate of progression is increased, struck below that centre, it goes more slowly, stops at the point of contact with the object-ball, or returns towards the striker; and if you strike the ball on either side, it travels towards the side on which it was struck. This, in fact, is the side-stroke.

An examination of the diagram will render the explanation very plain. Here we have the principal striking points of the ball for all ordinary strokes.

In making the *Central Stroke* the cue must be held straight to the centre of the ball, and struck fairly, either hard or gently, according to the necessity of the case. The Central Stroke is the one that is most ordinarily adopted, and by it most of the common hazards and cannons may be made. In playing at the cushion for bricole, and in all cases in which you wish to impart to the object-ball a line of motion similar to, or the counterpart of, that of your own ball, the

Central Stroke will be sufficient. The next figure will show you how the cue should be directed to make this stroke.



CENTRAL STROKE. HIGH STROKE.

The *High Stroke* is made by hitting the ball above its centre, and with the cue raised a *very little* from the horizontal. In fact, the nearer you can keep your cue parallel to the table, the more successful will be your stroke. I have already said that the velocity of the ball is much increased by striking it above the centre. The motion imparted to it by the cue is continued according to the original force of the stroke, till it comes in contact with another ball or the cushion, when it runs more or less straight in the direction towards which it was struck.

LOW STROKE SCREW.

The *Low Stroke* is made by striking the ball below its horizontal centre; and by just as much as you strike nearer to the table you retard its progress, till it either goes slowly, stops, or returns to your cue. The illustration will give you a good notion of the way in which the cue should be directed in making these strokes. When struck at its lowest point, you get what is called the "screw," "or twist."

To make this stroke the ball must be struck low, and, at the same time, *with a peculiar and sudden drawback of the hand, accompanied by a very slight inward turn of the wrist.* Moreover the point of the cue must be made to impinge upon the ball with a sharp twisting or rubbing motion. A cue with a round top, well chalked, is necessary for a

successful screw. The curious whirling motion of the ball when so struck is familiar to all Billiard players.

The screw is highly useful in a variety of cases—in the making of cannons, in Winning Hazards, etc.; in getting out of difficult situations and making the best of a break. All degrees of strength may be employed in the screw. The cue must be held as nearly horizontally as is possible, regard being had to the nature of the stroke.

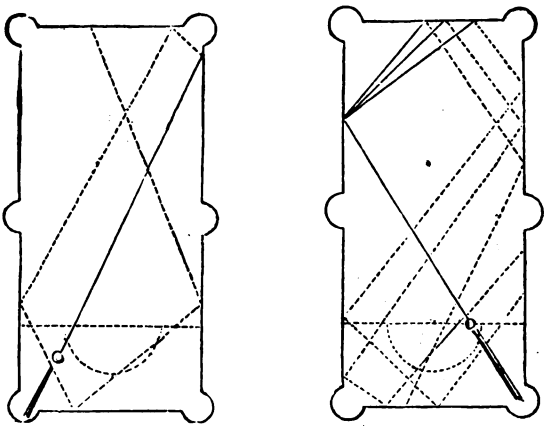
EQUALITY OF ANGLES.—We now come to the *quæstio vexata*, the Equality of Angles. The theory is thus stated :—The direction of the motion produced in a moveable elastic body (as an ivory Billiard-ball) projected against a body that is fixed and at rest (as the cushions of the Billiard-table) is simple and determinate, and is independent of the nature of the moving force, and alike under all the varieties of velocity and mode of projection, the reaction will invariably equal the action, and be contrary thereto, or the line describing the course of the body, subsequent to contact, will give a counterpart to the motion imparted by the force originally impressed; hence the angle of reflection must uniformly be equal to the angle of incidence.

This, however, is by no means the case with regard to bodies equally moveable and elastic—as two Billiard-balls rolling on the cloth-covered table. The motion resulting from the contact of these two moveable and elastic bodies is compound or modified by the peculiarity in the action and the intensity of the moving powers, and arises from the joint effect of indifferent causes concurring at the same instant in their operation. This is not intended to be taken as a mathematical proposition, but as one applying more especially to the action of the balls on the Billiard-table, when struck by the cue.

STRENGTH.—In the diagrams following we have illustrations of the various lines of angle assumed by a ball struck with various degrees of strength. An examination of them, and a trial of the strokes on the table itself, will show the tyro that the harder he strikes the balls the wider they fly apart.

This is a further illustration of the theory of the natural angle. If your ball be placed in baulk at an angle of forty-five degrees from the pocket, and you strike the object-ball in such a way as to make the half of the one ball come in contact with the half of the other, both balls will fly into the pockets. They must do so; they cannot go anywhere else. The stroke at the upper end of the table, commonly known

as the "pair of breeches," is easily made, if too much strength be not employed. This natural angle (as I have already



ILLUSTRATIONS OF STRENGTHS.

stated) is really the master-stroke of all hazards and cannons; for, however we may vary the method by which we arrive at this result, it is to this end that all hazard and cannon-striking must inevitably tend. From this master-angle proceed all the varieties of angles made without side-stroke. By practice the player will soon acquire dexterity sufficient to make either or both of these hazards at pleasure. The amount of strength required can only be discovered on the table itself. I presume that my readers understand the terms "full ball," "half ball," "three-quarter ball," "quarter ball," and "fine ball," as indicating the amount of impact between the player's ball and the object-ball. Thus, when I speak of striking a half ball, I mean that the ball struck with the cue covers, or impinges, upon half of the object-ball; and so of the other divisions of the object-ball.

It is easy enough to tell a player to make his stroke "a little harder," or "very much harder," "gentler," "much more softly," and so on; but what does the player himself

understand by such directions? If we tell one to play with "moderate strength," he drives his ball from the baulk to the top cushion and back again, whence it rebounds, and perhaps flies into a pocket; while from a similar direction another player will merely send his ball half-way up the table. Again, when one man is told to "play hard," he throws out his arm, and, with a violent shoulder-stroke, drives his ball right over the cushion and away to the other end of the room; while his friend receiving a like piece of advice just plays with force enough to bring his ball back into baulk from the opposite end of the table. Observing this, I some years ago devised a method of indicating the different amounts of strength necessary for the execution of various hazards and cannons.

This plan may be briefly stated thus:

1. A ball struck from the baulk line with strength enough to merely reach the top cushion is the *unit* or *minimum power*.

2. A ball propelled from the baulk line to the top cushion with sufficient strength to bring it thence into baulk is called the *ordinary power*.

3. A ball struck with force enough to send it from baulk to the top cushion, back again to the bottom cushion, and half-way up the table, is called the *elbow stroke*.

4. A ball struck from baulk to the top cushion with sufficient power to make it rebound against the bottom cushion, and thence again to the top cushion, is called a *hard stroke*.

5. A ball struck from baulk to the top cushion with strength enough to make it travel back to the bottom cushion, thence again to the top cushion, and back to the bottom cushion, or into the baulk—that is, twice up and down the table—I call the *shoulder stroke*.

Thus we have five distinct and easily understood degrees of strength, severally indicated by as many easily remembered terms: 1, the *unit, or minimum power;* 2, the *ordinary power;* 3, the *elbow stroke;* 4, the *hard stroke;* and 5, the *shoulder stroke*, beyond which latter no command over the direction of the ball can fairly be calculated upon.

Combined with the principle of the *natural angle*, we have here a theory that any one, without the least knowledge of mathematics or the motive power of forces, can at once comprehend and illustrate for himself. It is manifest that as soon as the player has acquired sufficient command over his cue to enable him to make either of the strokes at pleasure, he has conquered one of the great difficulties of Billiards.

In order, therefore, to acquire familiarity with the precise quantity of strength necessary under all conditions of the balls, and all varieties of the game, intelligent practice is the one great desideratum. Begin with the *unit stroke*, and play it again and again, till you can lodge your ball in a circle no larger than that of your hat; then play the *ordinary stroke*, and practise it till you can bring back your ball to any given part of the table, and afterwards proceed with the other strokes, playing them over and over again till you can make them with ease and accuracy.

Steadiness of aim is also another very necessary acquirement, and nothing is so conducive to accuracy in the making of strokes as attention to strength and motive power. With a full knowledge of the effect produced by every stroke, you will soon acquire the difficult but most useful art of "nursing the balls."

CHAPTER III.

THE ANGLES OF THE TABLE—THE PUSH.—DELIVERY OF THE BALL, AND ACCURACY OF AIM.

THE long-accepted axiom that the "angle of reflection equals the angle of incidence" explains, to some extent, the theory of angles propounded by all writers on Billiards, though the introduction of highly elastic cushions renders the study of angles on the Billiard-table a much more complicated and difficult matter than it was in the days of wooden tables and list cushions; still the axiom is, for all practical purposes, sufficiently explanatory. Those who wish to study the mathematical theory of the Equality of Angles will find it exhaustively treated in "The Billiard Book," by Captain Crawley. For the sake of illustration, however, an axiom may be taken to be practically true. Some players get into a habit of pushing the ball, which is very inelegant and uncertain in its result. Others make a "sudden impulsive jerk," which, by the way, is the plan recommended by Kentfield (Jonathan), though I fancy that he does not, or rather did not, practise

it himself; for in his day he was a most graceful and easy player.

The jerk is to be avoided as one of the worst styles of striking a ball, and, equally with the push, is indicative of uncertainty of intention and inaccuracy of aim. The best way to make an ordinary stroke is to deliver the cue in a smooth, confident, but not too rapid a manner, taking care so to make your bridge as to leave a free channel for the passage of the cue between your forefinger and thumb, without either holding the latter too close or spreading it too wide, at the same time keeping the knuckles well up, the palm concave, the fingers pretty close together, and the position of the hand easy and unconstrained. By this method of making the bridge, you can raise or depress the finger and thumb, according to the nature of the stroke, sometimes allowing the hand to rest on the fingers and wrist, and at others lifting the wrist completely off the table, and making the bridge with the tips of the fingers and the extended thumb.

In the majority of cases the cue should be held as nearly parallel to the bed of the table as possible, especially avoiding that raising of the elbow which is so common with beginners, just before the delivery of the stroke. If you play a ball to and fro the length of the table a few times, first with a horizontal and then with a slightly raised cue, you will discover that the raised elbow is the cause of the jump the ball makes from the cushion. For when so hit, the ball, instead of rolling fairly and evenly over the cloth, progresses in a series of short hops; sometimes the irregular tension of the cloth and the irregularity of the cushions may produce this disagreeable effect.

In the course of every man's play there will arise numerous cases in which a variation of style is absolutely necessary. Some hazards need an easy slow stroke, others a sharp, sudden one; others, again, a rapid and decisive drawback; and others, as in the "following" stroke, a kind of flowing push. What is wanted for the majority of hazards and cannons is a well-delivered, fairly struck ball. The player should not be too anxious to vary his style, as that begets uncertainty and irregularity—both bad habits in Billiard-play as well as in morals.

With the already-mentioned strokes may be combined the "follow" or the "screw," always remembering that the flowing motion of the arm necessary for the first, accelerates the progress of the ball; and the drawback motion necessary for

the last, retards it. The player should also bear in mind the fact that violence is not strength, and that the easy and smooth progress of the ball at any distance over which it can be made to travel depends rather upon the play of the wrist than upon the momentum of the shoulder power.

Steadiness of aim is also another very necessary acquirement, and nothing is so conducive to accuracy in the making of strokes as attention to strength and motive power. With a full knowledge of the effect produced by every stroke, you will soon acquire the difficult but most useful art of "nursing the balls." As you progress you will discover that the cushions are great assistants. When you have mastered so much of the theory of the natural angle as allows you to make hazards and cannons with ease and dexterity, strokes in which the limits of the table are disregarded, or rather not taken into account, then you may endeavour to combine with them those in which the cushions form a very notable element. Here a knowledge of strengths is highly important, because your previous practice will have taught you so to strike your ball that you may foretell with considerable accuracy the precise position of the balls after every stroke. So, when a good opening occurs, you may play with confidence, and make hazard after hazard; and then, when the balls fall so far asunder, or in such awkward positions as leaves no fair prospect of another hazard or cannon, all you have to do is to play your ball on to the red or the white in such a way as to leave as small a chance as possible for your opponent.

CHAPTER IV.

WINNING HAZARDS.

NOTHING in Billiards looks more easy than a Winning Hazard. The ball lies in a line with the pocket, and your own ball at a short distance behind it. All you have to do is to hit your ball fairly in the middle, so as to strike the object-ball full, and away goes the latter straight into the pocket. Is it not very simple?

Ah! my young friend, that graceful ease you so much admire in a thorough player has only been acquired by dint of steady and long-continued practice. The making of a Winning Hazard is easy enough—in fact, almost any tyro can accomplish the stroke. Every looker-on has noticed with what facility an indifferent player makes Winning Hazards, and it is a standing joke in the Billiard-room that Verdant Green generally divides his first Pool. But—and here we get at the very pith and marrow of the difficulty—*the easily made Winning Hazard is made without reference to the stopping-place of the striker's ball.*

Directly the player understands and appreciates the necessity for governing the motion of his own ball, his difficulties respecting Winning Hazards commence. He sees that it is not only necessary to pocket the object-ball, but that it is important to regulate the position of the striking-ball after the hazard. This control over the striker's ball is, however, of much greater moment in Pool than it is in Billiards. In an ordinary game of fifty, or a hundred up, it is often advantageous to the player to make a double stroke; but in Pool, if you pocket your own ball as well as the object-ball, you lose a life instead of winning one. Hence the greater care required in the Winning Hazard games.

For an easy Winning Hazard in Billiards, when both balls lie in a line with a pocket, a full stroke of *ordinary strength* is generally sufficient; but in Pool the player has to make his stroke in such a way as to leave his ball in safety should he fail to pocket the object-ball. He must, therefore, exercise some discretion and calculation before he makes his stroke. The pocket lies invitingly open, and the Winning Hazard seems provokingly easy; but if he is not careful to regulate his stroke, he may run into the pocket after the ball he plays upon; or, if he fail to make the hazard, he may leave his ball in a position favourable to the next player.

In ordinary Billiards it is generally sufficient to play the Winning Hazard with moderate or *elbow strength*, so as to lodge the object-ball in the pocket, and to bring the striking-ball some little distance back from the cushion. If the red ball has been played upon, pocketed, and replaced on the spot, another hazard or cannon is pretty sure to be left; and the player may often make a good break from an opening so presented. In Pool, on the contrary, the striker who pockets a ball has to play upon the ball nearest to the stopping place of his own ball. If, therefore, he sees a good chance of taking two or three lives, he plays upon the object-ball with

such strength, and such calculation as to distance, as allows him, after making his first hazard, to get fairly down upon any ball that may lie wide of a cushion and in face of a pocket. This calculation of strength and position it is that makes the good player. This care for consequences and cool steadiness of intention are the grand aids to success in Pool.

Hard hitting is the great fault of the young player. More games are lost from this cause than from any other—inattention only excepted. I remember seeing a game played between Mr. Pook and Mr. Mardon, both excellent players in their day, in which the former lost, though he was several points ahead of his adversary, entirely because he played too hard. In fact, the instances in which very hard strokes are required are comparatively few. Moreover, the harder you strike your ball, the less command you have over it, and consequently the smaller chance of winning the game. This applies equally to all the Billiard games. In Pool and Pyramids the player should be able not only to calculate on the place at which his opponent's ball will stop after concussion, but, as nearly as may be, at the place of his own ball when it ceases to roll. Moderate strength will, in the majority of cases, effect your object in a much more certain and satisfactory manner than violence or great muscular exertion. Just watch a couple of first-rate players, and you will see that they seldom or never make a run of many points off a hard stroke, but that all their great breaks proceed from comparatively easy hazards and cannons. You wonder, perhaps, why it is that you cannot make a break off balls so handily situated. You have frequently had them over the pockets, or in regular angles, and yet you know that you have seldom succeeded in making more than a single hazard or cannon. You have seen them left by your antagonist in such provokingly enticing positions that you have felt certain you must make a run of a dozen or twenty at least, and yet, when you come to play at them, you have been forced to content yourself with four or five, with, perhaps, a palpable fluke for the last hazard. You have had the mortification of hearing the marker call "Game!" and of being forced mentally to own that the ten points scored to your "lucky" friend—at that moment your bitterest enemy—were made from an opening precisely like the one you missed! All this comes from inattention to strengths, and an anxiety to score, without judgment. I am not going to tell you that you need make a toil of your pleasure, as many players do, but if you accustom yourself to

play with careful strength and sufficient calculation as to the result of every stroke, you will soon become so habituated to a right method that you will seldom fall into a wrong one.

The hazard-striking necessary for Pool differs from that required for Billiards in more than one respect. To take a life at Pool you must play your ball with less force and more exactness than at Billiards; for the reasons already given—regard being had not only to the success of the stroke, but to the safety of your ball after it has ceased to roll. Thus, for some strokes *unit strength* will suffice; others require *ordinary power;* some the *elbow-stroke*, but very few the *hard-stroke*, or the *shoulder-stroke*. These terms you will remember as severally meaning (1) a ball struck with force enough to reach from the baulk to the top cushion; (2) a ball struck hard enough to carry it from baulk to the top cushion and back again; (3) a ball hit with enough force to send it from baulk to the top cushion, back again to the bottom cushion, and half-way up the table; (4) a ball struck twice up and down the table; and (5) a ball that is made to rebound thrice from the top cushion when propelled from baulk. These terms, though not in common use among players, should be familiar to every reader and player, as their employment saves a world of troublesome explanation, and does away with the necessity of talking about "gentle strokes," "hard strokes," "hard play," and so on—phrases which have different meanings with different players, and which convey but little information, however they may be employed.

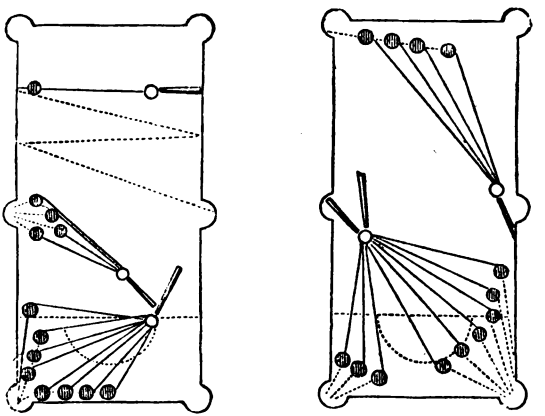
The Winning Hazard at Pool should be made with a certain dexterous *aplomb*, which can only be acquired by practice. The striker's ball should generally be struck rather below than above its horizontal centre. This method of striking gives the player great command over his ball, and allows him to stop it at pleasure, either under a cushion, or at a distance from his opponent's ball; for the greater the distance between the two balls, the greater the difficulty of making the stroke, and the less the chance of a hazard.

The Straight Hazard will occur in all parts of the table; and to make it properly the same description of stroke will suffice. If your own ball be in a line with the object-ball, and the latter with the pocket, strike with a rather low draw-back; and if you are pretty close to the pocket, and wish to avoid running in yourself, put on the least possible "side." This, indeed, you will in most cases do without knowing it. When you want to hole the red in a baulk pocket, strike with

sufficient strength to carry your ball up the table, so as to leave another hazard off the "spot."

Winning Hazards in the middle pockets require to be made with much nicety when the object-ball is not in a direct line. And this brings us at once to an important point. *All Winning Hazards, whatever angle there may be between the object-ball and the pocket, may be converted into Straight Hazards if they are properly struck.* How? Nothing more easy when you know the reason for the stroke. To hole a ball at an angle with a pocket, you must *divide it by just so much as is necessary to make it run straight to the pocket.* By striking a three-quarter, half, quarter, or eighth ball, you may pocket it from almost any part of the table, if it be a few inches distant from the cushion. When the object-ball is not in a direct line with the pocket, you must *make the stroke a straight one* by hitting it on one or the other side according to circumstances. By proper division of the object-ball you may drive it in any direction you choose; and if, at the same time, you regulate the strength and height of your stroke, you may always calculate, with more or less accuracy, upon the place at which your own ball ought to stop.

Here are some illustrations of Winning Hazards, every one of which is comparatively easy of execution.



WINNING HAZARDS.

Place a ball in any one position shown, and, pointing the cue as directed in the diagram, endeavour to make the Winning Hazard, and do not be content till you succeed.

In another chapter I will show you how to make the "spot stroke," which has become so fashionable of late; but you can never make a succession of "spot strokes" till you have fairly learned not only how to make a Winning Hazard with certainty and precision, but at the same time stop your ball in any part of the table, and *know precisely where it will stop.*

CHAPTER V.

LOSING HAZARDS.

LOSING Hazards constitute the main strength of the young player's game. You can easily test this for yourself. Place the red ball at an easy angle from one middle pocket, and a white ball in a similar position with regard to the other. Then play from baulk off the red for a Losing Hazard. If you have placed your ball in the right position within the semicircle, and play with ordinary strength, you will make the hazard, drive the red up to the top cushion, whence it will return to within a few inches of its former place. This stroke you may repeat till you have brought the red ball too far into the centre to allow you to make an easy Losing Hazard. Now play in a similar manner at the white, and after a few strokes you will also bring it towards the middle of the table, so that, when you can no longer make a safe Losing Hazard off either ball, you will have an easy cannon left, which, perhaps, will give you a Losing Hazard in one or other of the top pockets. Remember, that you will find it necessary to slightly shift your ball to the right or left in the semicircle after each Losing Hazard, in order to make the hazard itself as easy as possible, and at the same time bring the object-ball straight back from the top cushion. In all my directions I mean by the "top" cushion the one opposite the baulk end. It is necessary to remember this, as

in the rules issued by the Billiard-table makers "top" and "bottom" seem to be reversible terms, some calling the baulk end and others the opposite end the top of the table.

In playing Losing Hazards your object is to lodge your own ball in a pocket after contact with the object-ball—the white or red, as the case may be. The grand principle to be observed is this—carefully observe the angle formed by an imaginary line drawn from your ball to the object-ball, and from thence to the pocket, and make your stroke in such a way, and with just so much force, and no more, as will render *the angle between the object-ball and the pocket as nearly equal to it as you can.* In other words, endeavour to make *the angle of departure and the angle after contact equal to each other.* This you do by dividing the object-ball in such a way as will regulate the amount of impingement between it and your own ball. By thus drawing an imaginary line, first from your playing-ball to the object-ball, and then from the latter to the pocket, you will immediately get a *reason* for the hazard. And when you know the reason for a thing, you have more than half conquered the means necessary for its accomplishment.

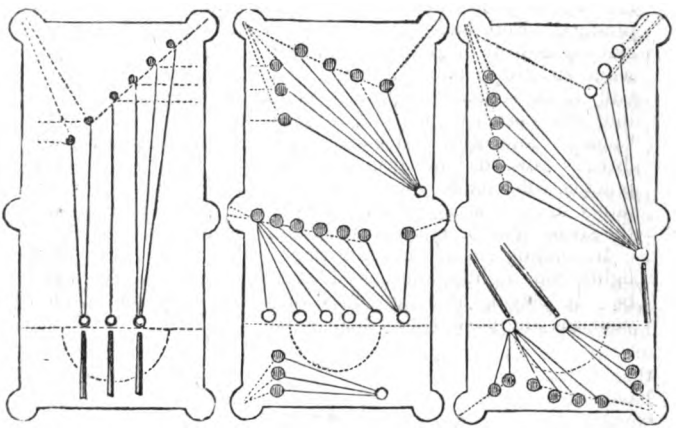
With two balls placed in the positions indicated, an ordinary player, beginning from baulk, will not find it very difficult to score from fifteen to twenty-five points—three red Losing Hazards, nine; three white Losing Hazards, six; and two or three cannons. What I recommend to the beginner, as soon as he can fairly strike a ball without making it hop on the table or spring obliquely from the cushion, is to try these two hazards, and to practise them till he has thoroughly conquered them, observing the place at which the object-ball stops after its return from the top cushion, and modifying the strength of his stroke according as the object-ball remains before or behind the middle pocket. He need not just yet bother himself about "side" or "equal angles" or "division of the object-ball:" all that will be acquired afterwards. Before teaching a child the grammar of a language, we familiarise him with its sound, accustom him to distinguish one word from another, and assist him to make simple sentences. The young Billiard player must in like manner first learn something of the practice of the game before he wearies himself about its theory or mathematical principles. He must educate his eye to see at a glance the probable effect of a stroke, and teach his hand to execute the hazards which lie before him; for without eye and hand act in unison, he will never be a thorough Billiard player.

Day by day new hazards and cannons are discovered by educated players; I mean such as take the trouble to acquire the reasons and philosophy which govern the game. Any man can soon learn to knock about the balls: nothing is more easy, or more amusing. But the man who cares to excel in Billiards must not rest contented to merely "play a little." He who would hold his own against strangers in the club or public room must practise daily, and must be content to be often beaten. Failure is the parent of success, as perhaps some one has said before me. No matter, a good thing once said is worth repeating. And here let me warn young players not to be discouraged by the accounts published from time to time of the wonderful feats of "professionals." There is little accomplished by any one of them that cannot also be performed by any man who gives sufficient attention to the theory of Billiards, and enough of his time to practice. But it is not to be supposed that every man can become a Roberts, a Berger, or a Cook! Nor, indeed, is it desirable that he should. Sufficient for the majority of us if we can ensure a respectable degree of excellence in our amusements. How often, however, do we find men who could be first-rates if they only took a little trouble and gave a little thought to what they had in hand! Do we not all know whist-players who lead up to their partner's trumps and neglect to make tricks with their own aces and kings? In like manner, hundreds of young fellows are content rather to sit down and admire the easy elegance of professional Billiard players than to take the trouble to emulate them. For such idlers I have little sympathy. What is worth acquiring at all is worth doing thoroughly; and as few will deny that Billiards is a most entertaining, healthy, and scientific game, then I contend that the true way of playing it is to play it well, and to get all the pleasure out of it that we can, and this we can do only in one way, and that way is only to be arrived at by practice, but such practice must be governed and educated.

Here we have diagrams of several Losing Hazards which occur in every game. An examination of these diagrams will give the tryro a better idea of the mode of making the strokes than any quantity of teaching. In all these hazards the player's ball is struck at or about its centre; the point of contact between the player's ball and the object-ball being shown in every case. This is called *dividing the object-ball.*

Take an instance of very common occurrence—the object-ball a little below the middle pocket, towards the centre

of the table, and the player's ball in hand. Now, the intention of the player is to make a Losing Hazard in the centre pocket and drive the object-ball to the top cushion, so as to leave another hazard off it in the opposite pocket after its rebound. Everything in this case depends upon the strength of his stroke and the position of his own ball. If the striker's ball be too much in the centre of the baulk, the angle taken by the object-ball will be too narrow either to allow him to make another easy hazard in the same pocket



LOSING HAZARDS.

on its rebound from the cushion or to hole it in the opposite pocket. But by putting your ball in such a position as to equalise the angles between it and the object-ball, and between the latter and the pocket, you can generally secure a second hazard. A good player with a thorough command over the strength of his stroke can make a great number of hazards from a ball so placed. I have myself frequently scored the game of fifty from a centre hazard off the red. The way to do this is—first, to make sure of your Losing Hazard. This is done by a half-ball on the red. Played with moderate strength, you will pocket your own ball and

drive the object-ball to the top cushion in a line of angle corresponding to the first line—that between your ball and it. The object-ball will then return in a direction more or less towards the side cushion, according to the position of the striking-ball and the amount of division employed. I once saw a fine player score thirty-seven hazards off a red ball so placed, and then, when the red had failed to come down to the centre of the table, finish the break with a pair of breeches in the end pockets—in all 117 off a single ball! This is, of course, a very extreme case.

A pretty hazard is occasionally seen at or near the baulk, and which professional players make much of by way of practice. Both balls are on the baulk-line—the red just outside, so as to be in play, and the striker's ball so placed as, while strictly in baulk, and not actually touching the other ball, to be sufficiently close to enable the player to push it into the corner-pocket. You must put on a very little "side;" and, with a decided, but exceedingly gentle *push* directly towards the pocket, make the hazard. A little practice will enable you to make this stroke with such certainty as to scarcely move the red ball. And in this way the stroke may be repeated for a dozen or more times.

In making Losing Hazards the cue must be held rather lightly than tightly, and held as parallel to the table as need be. In playing at a ball close under the cushion, shorten your cue and push, rather than strike.

CHAPTER VI.

THE SIDE-STROKE.

MANY young players talk about the side-stroke, and yet know little or nothing about it. Put into simple language, the meaning of the side-stroke is this: if you strike a ball on its side, it will, while rolling forward, also spin on its axis towards the side on which it is struck. On contact with another ball or the cushion, the forward roll will be diminished or altogether stopped, according to the force of the spin,

while the axial roll is continued. The result of this is, that the spin causes the ball to roll in the direction of its axial rotation. It follows, from this, that you must *always strike the ball on the side towards which you wish it to go.* If you strike the ball on its right side, it will roll towards the right; if on its left side, it will roll towards the left. The proper effect of the side-stroke is not, however, fully seen till after contact with the object-ball or cushion; when the player's ball will travel to the right or the left, according to the amount of "side" it has received. To increase the divergence you must put more "side" on, which means that you must hit your ball more towards the outside: and thus, according to the principle already laid down as to the speed of the ball being increased or diminished, according to the nearness to and side of the circumference at which it is struck, increase or diminish the speed of its spin according to the angle you wish to make after striking the object-ball or cushion. In making a side-stroke you must recollect that in hitting your ball very much towards its side, the cue is apt to slip; to prevent which its tip must be well chalked. Most players use a little side-stroke without intending to do so, it being difficult always to strike the ball in the centre. With the really scientific player, however, the quantity of "side" is a matter of the nicest calculation. The progress of a ball struck on its side is retarded; but after contact with another ball or the cushion, the ball flies off at a more or less sharp angle.

If the ball be not absolutely true, you cannot play with correctness, much less employ the "side" with effect. Immense care is taken by turners in producing thoroughly true Billiard-balls; and before they are sent out they are tested by all reputable Billiard-table makers with a machine by which the very slightest variation in weight or exactness of roll is instantly detected. I remember once playing with a noted professional, and, greatly to my astonishment, I failed repeatedly to make some not very difficult strokes. I could not understand the reason, and I lost the game. In the following game, however, we accidentally changed balls, when I immediately discovered that the spot-ball, with which I had previously played, was untrue. On attempting a slow twist, my opponent, who then had the spot-ball, made the same discovery. We had all the balls tested, and found that they were every one more or less imperfect.

Well, now that you know what the side-stroke *is*, the next thing to learn is *how to make it.*

It is not easy to strike a ball out of its centre and at the

same time strike it with exactness. The cue, instead of being held straight to the diameter of the ball, must be held at an angle a little more or less acute to it. This manner of holding the cue will also be found useful, though not absolutely indispensable, in making a screw.

But, beside pointing the cue and striking the ball at an angle from its direct line of progression, the side-stroke must be accompanied by an imperceptible and indescribable twist of the hand—a sort of rapid rub of the cue's point upon the ball. Care must be taken, too, not to strike at the ball with too much force. Moderate, or rather slight strength only is necessary to make the side-stroke to perfection. Calculate the distance your ball has to travel before its impact with another ball or the cushion, and put on the "side" accordingly. If you make too hard a stroke, you will defeat your object, and the "side" will not take effect. Instead of the ball flying off at an angle after contact, it will go straight on, just as if you had struck it in the middle for an ordinary Winning Hazard. Certainty of execution can only be attained by careful delivery of your cue, and a definite, though not too strong stroke. The whole theory of the side-stroke lies in the fact that by it the player is enabled to *enlarge* as it were, *the striking surface of his ball.*

To make the side-stroke with ease and elegance, you should stand well behind your ball and deliver your stroke with precision. It is not easy to explain the reasons, much less the practice, for the proper playing of side-strokes; and, therefore, I advise you to get a good player to show you how to make it; and then practise a few hours on a private table. No better mode of practising the side-stroke can be found than in playing your ball against the side-cushion from the baulk, outside the line, and bringing it back within the line, first on one side and then on the other, by putting on corresponding "side."

In the following figure I show this. Here we see how a ball struck on its side will return into baulk on an angle more or less wide, according to the amount of strength and "side" employed. To such nicety can good players make this stroke, that they can tell to within an inch where the ball struck will stop. Practise this stroke till you can place your ball in any part of the baulk you wish. An easy way is to place your ball on the baulk-line, and play your own ball out of baulk and in again, without striking the ball on the line; or by endeavouring to pocket your ball in the corner from the same kind of stroke.

Next as to *the quantity of "side" requisite.* Here much must be left to the judgment of the player; but it must always be remembered that the amount of "side" required is in proportion to the obtuseness of the angle.

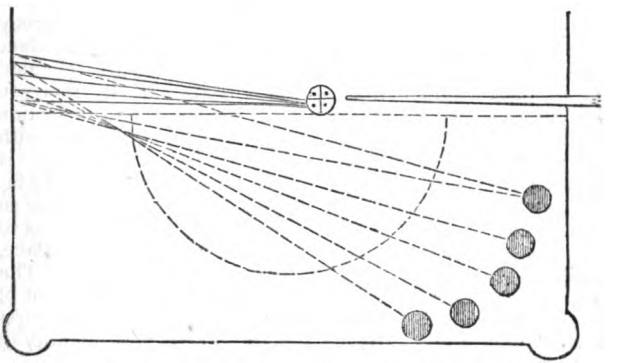
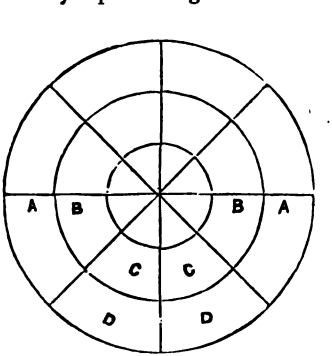


DIAGRAM SHOWING THE THEORY OF THE SIDE-STROKE.

Suppose the ball played to be divided into a number of imaginary parts, as in the following figure. Here we have a diagram pretty nearly representing a flat section of a Billiard-



THE DIVIDED BALL.

ball. With the side-stroke may be combined the high or the low-stroke, the screw, or the following ball. The figure is therefore divided horizontally, and just as the ball is struck above or below its centre, the stroke becomes high or low, a follow, or a screw. At A A we get the extreme centre "side;" at B B a moderate centre "side;" at C C a still less perceptible "side" and slight screw; at D D a "side" and strong screw. The same strokes above the horizontal line produce exactly contrary effects, the pace of the ball being accelerated according to the height at which it is struck. By this you will immediately comprehend that greater or less deflection of the ball after contact will be produced in accordance with the point of union between the player's ball and his cue. It may seem to be putting a rather "fine point upon it" to insist on these lines of "side," etc; but you will soon get so accustomed to this manner of dividing the striking-ball as to be able to point your cue to any part of the ball's surface, and to strike at that part with certainty and dexterity. The precise amount of "side" necessary for the accomplishment of any defined object is only to be obtained by actual practice. I can no more give you directions for the actual quantity of "side" requisite than a writer on carpentry could tell a mechanic precisely how much wood to plane off a board in order to produce a perfectly smooth surface. On the Billiard-table itself an expert will be able to show you more—in this particular respect—in a couple of hours than a writer can in a couple of years.

But some things I *can* tell you, of which the expert is most probably ignorant. One of these things is, that the "*side" is never communicated;* that is to say, it is not imparted from the striking-ball to the object-ball. What many players imagine to be "communicated side" is nothing more than a peculiarly sharp division of the object-ball. The striker's ball flying off sharply from the ball it strikes, sends the latter forward, or sideways occasionally, at another sharp angle, because of the small quantity of space on the surface of each ball, covered by the contact.

"*Side" cannot, under any possible circumstances, be communicated to the object-ball.*

The side-stroke affects the ball struck with the player's cue, and cannot be diverted or communicated to the object-ball—the ball with which the cue-ball comes in contact. The effect of the side-stroke is to widen or decrease the line of departure taken by the player's ball after contact with the object-ball, or with the cushion, according as the player's

ball is struck on one or the other side, and the amount of force or fulness with which both balls are divided.

As every point of the circumference of a sphere must be the centre of that circumference, so it is mathematically impossible to strike a Billiard-ball anywhere but in its centre. But in actual play another element intervenes. When we say we strike a ball high, or low, or on the side, we mean above, or below, or at the side of such ball as respects the plane of the table and the parallelism of the cushions. The effect of such a mode of striking the ball with the cue is to raise, or to lower, or to remove to one or the other side, the rolling weight of the ball, and to cause it to run on an axis different from that of its natural axis. The effect of such a stroke is felt by the cue-ball immediately the stroke is made; but it is not discoverable until the ball comes in contact with another ball, or with the cushion; and *then* we see that the angle of departure taken by the cue-ball is more acute, or more obtuse—as the case may be, according to the nature of the blow—than the natural angle of 45°, from a ball struck full or nearly centrewise. *The effect on the object-ball is precisely the same, however the cue-ball may be struck;* for, on contact with the latter, the former always rolls on its natural axis, and in the direction of the propelling force with which it is struck; and it *cannot* roll on any other, because *the middle of the circumference of the one is projected against the middle of the circumference of the other.* How, therefore, can side be communicated?

If side *could* be communicated, why not "screw" or "follow"? When any player can screw his ball back from an object-ball, and cause the latter to return to his cue, then he may proceed to demonstrate the possibility of "communicated side."

Without the point of the cue is round and fine, and thoroughly chalked, it is not easy to make the side-stroke. For pool-strokes, which are all Winning Hazards, a flat-tipped cue will do admirably; but if you want to play side-strokes to perfection, you must be careful to have a finely-tipped cue.

And now a few words by way of caution. The side-stroke is not to be employed without judgment. Where a stroke can be made with the ordinary full blow, side is unnecessary, and sometimes mischievous. Many young players are fond of showing off with a side-stroke, but it is sounder play to make the stroke without side whenever it is practicable.

As I have already said, all the strokes that can be made by dividing the object-ball and hitting the striker's ball full,

may be made with the side-stroke; but some strokes that *cannot* be made by the division of the object-ball *can* be easily enough made by employing side. My advice to young players is to keep the side-stroke for the latter occasions, and to endeavour to play the game in a straightforward, regular manner, reserving the side for really difficult strokes. But there is a method of employing side which is highly useful, and which may be brought into play in almost every game on the table: I mean the combination of side with the division of the object-ball—the *division of both balls*, in fact. Of course, it is much easier to divide your own ball than the object-ball, because the one is immediately under your eye, and the other is at some distance. But when you divide both balls, you arrive at a certainty and precision of execution to be got at by no other process. But more than this—you are not obliged to put on extreme side or extreme division of the object-ball. A little of each will, in most cases, accomplish all you desire.

The great art of scientific Billiard-play is to employ just as much side, and no more, as will effect the end desired. If you drive a ball up the table at shoulder-power, when elbow-power only is needed, you *may* make the stroke you wish; but you cannot calculate, with any degree of certainty, on the place of your ball *after* the stroke. This remark applies equally to plain strokes as to those in which side is absolutely necessary.

As I have already explained, the striking of the cue-ball more or less on its side—that is, more or less distant from its plane-centre—causes it to diverge towards the cushion in the direction of the stroke. Thus—suppose a section of the ball—if the blow from the cue's point be delivered a little to the right, or a little to the left of an imaginary line drawn through its perpendicular, we cause the ball to travel to the right or to the left, in accordance with the direction of the blow. Precisely and strictly in unison with the point of attack, the ball travels on an axis more or less distant from its real centre or axis. Immediately the ball, so struck, reaches another ball or the cushion, it flies off in a direction narrower or wider than its natural angle of 45 degrees.

In other words, if you play a ball full against the cushion, and mark its progress after contact, you will see that the second angle is the reverse of the first—the angle of reflection equalling the angle of incidence—or that the return angle is contrary in direction but equal in shape to the angle of projection. But if you put "side" on to your ball, you will

notice that the return angle widens or diminishes more and more according to the force of the side-stroke applied. With a little side, but slight deviation is observable: put on a little more, and the angle widens; extreme side, and it is yet more extended; reverse side, and the angle is narrower. And all this, in the hands of a thorough player, is capable of almost mathematical demonstration.

If you strike the ball full in the centre, you make the plain or natural angle of 45 degrees; if on either of its sides, you make the angle wider and wider, as the "side" is more positive; or narrower, if the reverse side is employed. For plain strokes, you point your cue straight to the centre of the ball in section;  for side-strokes, you incline your cue a little to the right or the left, and stand well behind it, so that your arm is in a line with the cue's point. 

For *Reverse Side*, you point the cue across the ball, and strike it on the side most distant from you. This kind of stroke, which is easy enough of performance when you once get hold of the knack, requires considerable practice, as, indeed, do all side-strokes, if you would make them successfully. But, as I have already said several times, side is only necessary in special and peculiar situations. Like a sword, it is useful to possess; but, equally like it, does not need to be flourished on all occasions.

In actual play the ball takes more or less curve, and the cue-ball, after contact, spins away from the object struck, whether ball or cushion, in that series of curiously rapid gyrations which all Billiard players must have noticed.

When Kentfield—or Jonathan, as he is called—was the great player, his forte lay rather in cannons and gentle hazards than in *tours de force*. The difference between his play and that of any of the great "cracks" of these times is that he makes very little use of the side-stroke, while they employ it for almost every hazard. For a beginner, a judicious use of both "side" and "division" is best and safest. The most successful plan is to begin your practice without "side." When you can make all ordinary hazards by the simple division of the object-ball, then—and not till then—you may try the side-stroke.

This chapter I may conclude with a suggestive extract from one of Captain Crawley's "Notes on Billiards," which has attracted so much attention in the columns of the *Morning Advertiser*:—

"The general notion of the outside public is that the game of Billiards offers peculiar facilities for roguery, and that, generally, green young men are caught, trapped, and devoured alive by the wicked ogres commonly known as Sharps. This notion, greatly favoured by writers and encouraged by anxious parents and guardians, is, like many other popular notions, only partially—I may say very partially—correct. Instances of sharp practice were certainly not particularly rare some quarter of a century ago; but now-a-days the game is played far oftener for amusement than for gain.

"I think I can trace the origin of the game's bad reputation. Some seventy years ago Mr. E. White published his *Practical Treatise on the Game of Billiards*, a treatise which, though mainly derived from an earlier French work, still retains some reputation as a text-book. In his first chapter White says:—

"'As it (the game) is replete with entertainment and attended with that kind of moderate exercise which renders it at the same time more agreeable and conducive to health, it will, in all probability, long remain in fashion, notwithstanding it has of late years been in some measure prostituted by a set of men who infest the various places of public resort, and live upon the spoils of the unwary.'

"Oh, Mr. White! what a deal of mischief you did by that long, unlucky, roundabout sentence! What years and years it has taken to wear away the prejudice its wordy rebuke engendered! What influence has it not had upon fathers and mothers and the general unreasoning public ever since! For though it might have been true enough in the days when George the Third was King and his son considered the finest gentleman in Europe, it was hardly true enough to be repeated in substance, if not in words, by every novelist, and essayist, and moralist, and smatterer who has found occasion to write about Billiards ever since. My favourite game has been a fruitful kernel for goody-goody people for three-quarters of a century, and, like the drama, has been banned because of the inconsiderate blame which you, Mr. White, chose to cast upon it. And the wrong you did was not allowed to die with you; for almost every writer upon Billiards has repeated the accusation. And that, too, without reflecting on the gradual improvement in manners which

has since taken place. Roberts in his book revels in accounts of rascalities achieved by Billiard-sharps, and everybody who writes anything, however flimsy, about the game, seems to consider it a duty to enlarge severely on its temptations. But sharping is no longer openly practised, as any one may prove who chooses to see Billiards played in public rooms.

"Not content with the sweeping assertion that the game had been prostituted by the men who live upon the spoils of the unwary, Mr. White enlarges on the topic, delights in it, gloats over it, in an elaborate note. Hear what he says :— 'Billiards being a game of skill, is particularly calculated to ensure success in the predatory designs of sharpers. No Billiard-room of any notoriety is free from men who are gamesters by profession, and who are constantly in waiting to catch the ignorant and unsuspecting, who occasionally drop in from motives either of curiosity or amusement ; and by constant practice they acquire a degree of dexterity that enables them to obtain an easy advantage over the generality of their opponents. Their grand object is to conceal their skill from their adversary, and to accommodate their play to his in such a manner as to appear to obtain the conquest more in consequence of good fortune than good play.' And then he goes on to show how the little problem is worked out. 'In order,' he says, 'to effect this, they avoid scoring in the obvious and more easy way, and chiefly depend upon those strokes the intent of which is apparent only to those who are intimately acquainted with the minutiæ of the game. They generally suffer their adversary to gain some few games successively, and then propose to double the stake, to which he, in all probability, consents, deluded by the hope of a conquest as easy as the preceding ; but in the end, it is well for him indeed if he escape being fleeced of all the ready money he may happen to have about him. Let the young player, therefore,' says Mr. White in the warning voice which has never since been forgotten, 'be extremely cautious how he becomes the antagonist of any one (though in appearance and manners the most engaging and respectable) that he may accidentally meet in houses of this description ; or if he may be induced to play from motives of amusement, let him never be tempted by a deceptive appearance of superiority, to venture upon any considerable stake.'

"Young players are generally too knowing to be taken in by 'engaging and respectable' strangers, and houses of 'this description' are happily so few and far between as to be difficult to find. A stranger who goes into any of the recognised

public rooms must play several games before he can venture to offer a sixpenny wager; and as for the 'ignorant and unsuspecting,' over whom Messrs. Sharp and Fleece are to obtain their dirty conquests, well,—they are not to be found. Young fellows who can only play a little, content themselves with a game or two in a private room by themselves. Only those who can play a fair average game venture to exhibit in the public room."

CHAPTER VII.

DIVIDING BOTH BALLS.

THE perfection of Billiards is attained by a careful and judicious application of means to ends. Any set style of play must fail if the player be incapable of changing his tactics according to the exigencies of his game. It is useless to tell the tyro that such and such ways of striking his ball lead to such and such results, if he possess not the *nous*—pure Greek, that word—to accommodate his stroke to the necessities of the particular case before him. Sometimes, for instance, a hard stroke gains him a position he would have failed to attain by an easy one, and *vice versâ*. A little "side," judiciously applied, is often of the greatest use, but side-stroke in the wrong place is simply waste force. Who needs a fire-engine to put out a candle? So also with the screw and the following-stroke; a ball struck too high or too low defeats its own purpose, and the player is vexed at his want of success. I have seen some very good players utterly put out of conceit of their game by failing to make some ordinary stroke that looked almost too easy to miss. And more than once or twice I have lost a game through sheer carelessness, the stroke before me looking as if it were easier to make than to miss. Of course, these little accidents will happen with the best of players occasionally, and I refer to them merely to remind you that you cannot be careless at Billiards and at the same time play well. I don't believe in doing anything carelessly. The man who plays at Billiards, Whist, or Chess, or, indeed, at any game of

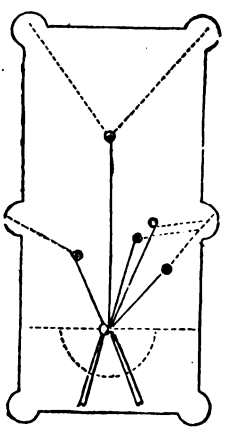
skill or chance, simply to pass away the time, should, at any rate, play as well as he can.

Having conquered the screw, the following-stroke, and the side-stroke, and being able to divide the object-ball with some degree of accuracy, the next point is to combine your knowledge so as to be able to play the proper stroke at the proper time. Herein consists the true theory of Billiards. In this we distinguish the player from the pretender—the careful student from the mere tyro—the clever professor from the careless amateur. Many young men can make particular hazards with dexterity—some excelling in Losing Hazards, some in Winning Hazards, and some in cannons. Judgment and accuracy of calculation are necessary to the playing of a thoroughly good game. By a "thoroughly good game" I mean such a one as enables you to hold your own with more or less chance of success against all comers—regular professionals and first-rates always excepted. Of course, I do not expect any gentleman-player to be able to contend on equal terms with a Cook or a Roberts, any more than I should expect an expert amateur gymnast to rival Leotard or Blondin, or a good rider to contend with Fordham the jockey, or a circus performer. An hour's careful play daily will make any man a good player, especially if he be judicious in choosing his adversaries, and matching himself, by preference, against good rather than bad players.

Always remember the grand axiom in Billiards, that *the angles of incidence and reflection are equal to each other*—in plain strokes, that is; and when you neither divide the object-ball nor put "side" on the ball you strike with your cue. When you do either of these, you modify the axiom to a greater or less extent, and render the angle of reflection more or less acute than the angle of incidence. Now, as extreme division of the object-ball is a matter of some uncertainty when it is at a distance from your own ball, and as the constant employment of much "side" leads to irregular play, the true plan, and that which will be found of most advantage in a general way, is to *divide both balls*. By this I mean the use of a little "side" and a less "division" of the object-ball than would be necessary if you struck your ball full. To take an instance of very common occurrence in every game of Billiards: The object-ball lies midway, or nearly so, between the middle and the top pockets, and your ball is in hand or in baulk. If you strike your ball *full* and hit the object-ball *accurately*, so as to make the *half* of the other ball, you will lodge each ball in opposite corner pockets. If

you fail to play a true *half-ball*, you will probably miss both hazards. But the *pair of breeches* may be easily made if you put a little "side" on your own ball and strike the object-ball about half a ball. Again, in making Losing Hazards in the middle pockets from baulk, you put on a little "side" and divide the object-ball, and make the hazard easily. *The quantity of side* must of course be determined by the acuteness or obtuseness of the angle between the object-ball and the pocket. You must remember also to put on the right or left "side" according as you wish your own to fall on the right or left-hand pocket.

This rule applies to hazards all over the table, at all degrees of strength, and at any distance between the ball struck with the cue and the object-ball. When once acquired, the *dividing of both balls* is not only easy of execution, but eminently practicable. Try it. Place a couple of balls in position, and make the stroke again and again, till you carry out the theory here advanced. I have known scores, I may say hundreds, of players who practised this method of striking the ball for Losing Hazards, without knowing anything whatever about the reason or theory of the stroke. But the knowledge that such a style of play modifies the law with respect to the angles of incidence and reflection is a great point in the player's favour.



DIVIDING BOTH BALLS.

Of course the "division of both balls" is as applicable to cannons as to Losing Hazards; while in the making of Winning Hazards there is this advantage—that you may hole the ball you strike at without the danger of running into the pocket after it: a most decided advantage in the various Pool-games.

With the "division of both balls" you can, at proper strengths, combine the high or low stroke at pleasure. Thus you have a means at your cue's end of accomplishing many strokes that would otherwise be difficult.

A little diagram will illustrate these remarks with accuracy.

Here we see the several strokes that may be made by "di-

viding both balls." The upper one is the well-known pair of "breeches;" the others are Losing Hazards which present themselves in every game.

In the regular Winning and Losing Hazard and cannon game—Billiards *par excellence* as played in England and wherever Englishmen go, all over the world—this method of playing is peculiarly advantageous. By it you can make not only the stroke you wish to make, but you may play with much greater certainty of leaving your ball and the object-ball in favourable positions. And you know how useful it is to be able to keep the balls before you and play without the rest. If you watch good players, you will see that they seldom need to use the rest. This, of course, arises from their accurate knowledge of strengths and the proper application of side-stroke.

By "dividing both balls" the player can arrive at a much greater degree of accuracy than either by side-stroke alone, or by the division of the object-ball. The observant player will notice the course taken by the balls after contact, and after a while will be able to judge pretty nearly as to the amount of "division" required. The variations produced in the angles by the dulness or liveliness of the cushions on different tables may be corrected by means of more or less "division;" but I can give no rule for this. Every player must exercise his own judgment in a matter of this kind, and as difficulties present themselves he must conquer them as best he can. Much depends upon the delivery of the cue; many players hit the striking-ball full when they intended to put on "side," and divide the wrong half of the object-ball. This arises from the see-saw or swing of the cue before striking the ball. You may *point* correctly at your ball, but you must also *strike* it at the precise spot pointed at, or you will fail to make the stroke you desired. Instant delivery is of more consequence in "dividing both balls," or in making a side-stroke, than it is in merely striking your ball full at the object-ball for a Winning Hazard. An imperfect bridge or a badly-chalked cue will cause the failure of the easiest strokes, and altogether defeat the intention of the player. When, therefore, he wishes to "divide both balls," he should not only see that he draws the imaginary lines of angle correctly, but he should be careful to keep his bridge-hand in the proper position, and not play with too backward a swing of the cue. There is great difference between freedom of delivery and a cramped action of the striking-hand. The principle to be borne in mind in "dividing both balls" is that the lines of

departure of both balls after contact should be as nearly alike as possible. The side-stroke alone, or the division of the object-ball alone, will not effect this, but by "dividing both balls" the direction taken by the balls after contact may be fairly calculated on. You must also employ a regulated degree of strength, according to the distance you wish your ball to travel, and not strike hard for a hazard that needs only ordinary force, or play a gentle stroke for a wide hazard or cannon. By "dividing both balls" you arrive at a nearer approximation to the axiom, as to the angles of incidence and reflection being equal to each other, than by any other means; for it is really more difficult to strike your ball full in the centre, and cause it also to strike the object-ball full, than it is to strike your ball a little on one or the other side, so as to cause it to hit the object-ball by a half, quarter, or fine ball.

CHAPTER VIII.

CANNONS.

IN the days of list cushions—which, by the way, were a good many years ago, before you, dear player, knew anything about cues or hazards, and certainly before *I* can remember—in the days when Jonathan was the player and teacher *par excellence*, and Brighton was honoured and patronised by the "finest gentleman in Europe"—in the days of exclusive play on old wooden boards, and heavy bets on very slow and tedious games—in the days when Harry Brougham defended Queen Caroline, and Dr. Birkbeck believed mechanics' institutions to be a good substitute for manhood suffrage, cheap newspapers, and popular rights;—in those "rare old times of our ancestors," Billiards was mainly a game of cannons. And that Billiard players really did know something about cannons in that ancient period, Kentfield's two-guinea volume—you will find it at the British Museum library, 786 m. 32, fol., Lond. 1839—is sufficient proof. But our forefathers knew little or nothing about the "spot-stroke," or the "slow-screw," or the "side-stroke;" and though they could make cannons from the cushions, and "all round the table," they

must have been poor players compared to our modern "cracks." I fancy that the very best of them would have stood but little chance against the professionals of to-day.

Cannons neatly and dexterously made are admirable aids to a game. The French are great at this. In France they usually play upon a small board, with three-inch balls and wide-tipped cues, which render the cannons easy to attain. I have played on many tables in many continental towns and cities, but I must say I never yet met a Frenchman whom I could not beat at his own game; and when foreigners come here, they do not make much of a figure at Billiards. In that game, as in dress and the fine arts, there is with them more show than work. The real science of cannons is not thoroughly understood, or I should rather say, not thoroughly mastered, by any but Britons! This may sound like national vanity—"Britons never, never will be," etc., etc.; but it is true, notwithstanding!

"Well, then, the question is—how to cannon successfully? The true theory is this:—In all non-cushion cannons the endeavour of the player should be to make *the line between the first ball and the second correspond as nearly as possible to the line between his own and the object-ball.* This he does by a judicious use of the 'side-stroke.' Where the corresponding angle is not equivalent to that between his own and the object-ball, he makes it so by putting on more or less 'side,' according to circumstances. This might be exemplified in a thousand ways; but I must content myself with stating the fact and leaving its proof in the hands of the player. Before he makes the stroke the tyro should draw an imaginary line between his ball and the one he plays on, and so strike as to cause the divergence between the first and second ball to correspond or equal that between his own and the first. Here a careful observance of the positions of the three balls, one to the other, and a nice calculation of the theory of angles, will enable him to accomplish his object; or, at least, to arrive at an approximation to it. In cannons a clever 'division of both balls' will be found of immense use. For you must remember that *every cannon is six inches wide*—that is to say, that the extreme touching points between the striker's ball and the third ball of the cannon may vary to that distance—two inches for each ball. Place three balls on the table, and exemplify this fact for yourself. Don't take my word for a single axiom; but, in every case, prove it on the Billiard-table. And here I may say, once for all, that every diagram here inserted, and all the examples here

adduced, have been tried and proved with a chalked ball upon a good table before they were made public.

"In cushion cannons we come to a direct and never-failing proof—so far as proof is possible—of the theory, that the 'angle of reflection equals the angle of incidence;' and, however many times you may cause your own ball to reflect from the cushion after the first ball is struck, the reflection will in every case correspond to the direction taken after impact with the object-ball—always, of course, *allowing for the quantity of 'side' given to your ball*, and for the *amount of division on the object-ball.* This is the grand and uncontradictable theory of cannons.

"Now, as the cannon is always at least a ball wider than the hazard, it would seem that the one is by so much the easier than the other. This is true in theory, though in practice it varies with the style of the players—some having a greater aptitude for Winning Hazards than for cannons or Losing Hazards. In certain positions the making of the Losing Hazard requires the greatest nicety. There being only just room for the ball to enter the pocket, the least deviation from the proper line sends it against the cushion, and causes the stroke to be missed. But in cannons, the very slightest impact, the merest touch, between the balls is sufficient to enable the player to score. Nor is so very nice an observance of strength an actual necessity in the making of cannons as in that of hazards—the fairly-hit ball always going in the direction intended, and flying off from the first to the second object-ball at the proper angle, irrespective, to a certain extent, of the force with which it is struck. Remember, 'to a certain extent' only; it is the 'uncertain' extent that is dangerous. Of course, a too hard stroke will be equally faulty in cannons and hazards, breaking through all the angles of the table and destroying all the science of the game. In making cannons, therefore, strength is not to be lost sight of; the player who makes his stroke with calculation and judgment may often make a great score out of an unpromising break of the balls. The main art of the player is to keep the balls before him, and score as long as he can.

"When the balls lie pretty close together, a succession of cannons may be easily made. I recollect winning a game by a series of cannons, when my chance was almost gone. The balls lay together in a triangle thus, ººº close to the cushion inside the baulk. I played gently, and drove the two balls before me from end to end of the table, always taking care to use just sufficient force to send one ball a very

little way in front of the other, and reversing their positions with every stroke. Arrived at the top cushion, I had the two balls in front of the corner pocket, where they remained partially fixed. I made several cannons on to them, while in this position, and ended by driving the red ball into the pocket, following in after it, and winning the game. I made nineteen cannons in this break, and a six stroke to finish with—in all forty-four. Try this, and you will find it by no means so difficult as it appears. Your principal object is to avoid the spreading apart of the balls. To keep your own ball behind the others it will be necessary to use a very slight 'side,' reversing it with every stroke. In passing the middle pocket, be careful not to run in; but if you find the balls getting wider and wider, then the best way is to make a Losing Hazard, and start again from the baulk."

DIRECT CANNONS—that is, cannons from ball to ball without playing from the object-ball to the cushion before the second ball is struck—occur in every game, and all over the table. All these require more or less division of the object-ball, the player shifting his position according to circumstances.

Various cannons may be made by dividing the object-ball or by screw. These cannons occur at various distances; but all examples of the direct cannon can be but modifications of these or similar positions of the balls. It is not, therefore, necessary that I should multiply instances. The clever student of Billiards will be able, from the examples adduced, to make hundreds of modifications for himself.

CUSHION CANNONS.—Of the nature of cannons and the way to make them, most Billiard players require to be told little. "But yet how few players do we meet with who thoroughly understand and practise the true principles on which they depend. A correct knowledge of the angles of the table, and the degrees of strength necessary to carry the ball just so far and no farther; a proper appreciation of the value and right application of the side-stroke, and a judicious employment of means to ends—all these are necessary to the making of cannons. But 'all these' cannot be obtained without practice, and it is not given to every man who handles a cue to be able to draw just conclusions from even the most plainly stated and obvious premises. Hence the necessity of a good tutor. I have known many fair average players who could no more tell you the 'reason' for their strokes—no more trace effects back to causes, and give intelligible explanations of special strokes and hazards—than

they could calculate an eclipse or square the circle. Not, however, that any large amount of perception is necessary to make a good Billiard player—and certainly school knowledge is not an indispensable condition; for you, and I, and all of us, know first-rate hazard-strikers, and dead-shots at Pool, who would find it very difficult to pass the preliminary examination at Eton or Harrow. But what *is* wanted is a light, steady hand, a good eye for distance, and a quick, resolute, and far-seeing appreciation of difficulties. Are these qualities to be obtained by practice? Most certainly they are, especially if the amateur be sufficiently posted up in the 'why' and the 'wherefore' of his play.

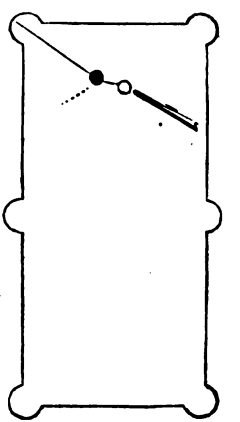
"Having already given some examples of direct cannons, it remains for us simply to examine the principle of cannons from the cushion. This principle may be explained in a few sentences: the angle of reflection is equal to the angle of incidence; thus a Billiard-ball, struck with equal force at two points at right angles to each other, takes the mean point between the two, or which is scientifically called the diagonal of the parallelogram. In other and simpler language, every angle taken after the first percussion between two balls is a counterpart of the first angle, and this, too, all over the table. Exemplifications of this law are seen in those cases where the angles would be absolutely equal to each other but for the 'side,' which is either purposely or accidentally put on the ball by the cue of the striker. In this figure we see how cannons 'all round the table' are made; the variations occurring from the difference of position between the striker's ball and the object-ball. This plan of playing from the object-ball on to the cushion, for the purpose of making a cannon upon a ball in another part of the table, admits of immense variety in style and treatment; but the *principle* of the stroke is the same in every position of the balls. It strikes a looker-on with surprise to see a good player make cushion cannons from end to end of the table; but there is really no more difficulty in these than in direct cannons. All the player has to do is to calculate the distance, and *make his first angle from ball to cushion assume the direction all the other angles should take.* This is the secret of all cushion cannons."

CHAPTER IX.

THE SPOT-STROKE.

OF late the spot-stroke has been much practised, especially by the present professional players. Indeed, the number of successive spot-strokes made by Cook is something astonishing. Previously to the match for the championship Roberts was considered unequalled in this particular kind of hazard; but Cook is now admitted to be his superior.

There are two ways of making the spot-stroke, the choice of which must be left to the player, the position of the balls, and the exigency of the game. When the red is on the spot, and your own ball is directly behind it, in a nearly straight line with the end pocket, you may play a low drawback screw, which will lodge the object-ball in the pocket, and leave your own a few inches behind the spot. In this way the Winning Hazard may be repeated several times in the same pocket. But beware of stopping your ball too near to, or on, the spot, as, in that case, the red will have to be spotted in the centre, and your break will be at an end. In the American Game, when the red is placed on the lower spot, and you have four pockets to play into, the drawback will be found very appropriate; but in the English Game the better way to make this stroke is by putting on a little "side" and a little division, so as to drop the red gently into the corner pocket, and leave your own ball in such a position as to give you the hazard in the other corner, as shown by the short dotted line in the diagram. And thus alternating your stroke, you may make several successive hazards. Sixteen, twenty, or more hazards are often made in this way by good players, but Cook and others often make very many more.



It is a highly effective stroke, and a very great favourite with players. Once get the balls into the proper position for it, and it is only a matter of care, judgment, and calculation, as to what extent you may carry your break. But do not imagine that it is easy. You must practise frequently before you can make the spot-stroke half-a-dozen times consecutively. But when you have once acquired it, no stroke on the table is much easier. Care should be taken to point the cue correctly, and to make the stroke in exact accordance with the striker's intention. Some players arrive quickly at the knowledge and knack required; others point the cue rightly, and then immediately fail in the stroke. This arises from a deviation between the pointing and the striking, in consequence of the hand being raised in drawing back the cue. The hand should be kept nearly parallel to the table, or the resulting stroke will be a failure. It has been noticed that very tall men generally strike too low, from the fact that they do not sufficiently bend to their work. When once the habit is acquired of striking the ball in a particular way, it is difficult to alter it; therefore, get into the habit of striking properly. Nothing is so common in Billiards as discrepancy between intention and execution; and it is only by long practice, and perfect consonance between the will and the hand, that success can be assured.

HOW TO MAKE A BREAK WITH THE SPOT-STROKE.

The Spot-stroke was well known to Mr. E. White nearly seventy years ago, and what he said then is equally applicable now. "Presuming," he says, "the red ball to occupy its proper place on the spot, and the striker's ball behind it in a direct line with the pocket, this is a simple and common case. But it is one which, if managed with address, may, by a particular mode of play, be often turned to much advantage. From the balls," he continues, "being so near to each other, the player will be enabled to vary his manner of striking at pleasure. If, therefore, he avail himself of the low stroke, he may without difficulty make his ball return to the place it before occupied, and thus will be able to repeat the stroke more or less frequently, proportioned to his share of dexterity."

Though the stroke has been so long known and practised, it was reserved for W. Cook, jun., to bestow upon it that attention which White recommended; and with such success

has he practised the stroke, that he has made no fewer than 158 consecutive Spot Hazards. Until Cook appeared, the largest score of this kind had been made by the elder Roberts, in March, 1862, when he pocketed the red ball from the spot in a hundred and four consecutive hazards.

Well, let us now see how the spot-stroke may be most successfully accomplished—though we may observe, incidentally, that the time, study, and practice necessary to make a player of Cook's excellence would be sufficient to win a man a high position in the Church, the law, or the army!

Of course, the great points to be studied are to make sure of pocketing the red, and to leave the white in such a position as will enable you to make another hazard. Great care and delicacy of touch are required, as well as constant practice, to acquire anything like proficiency in this stroke, though, without a fair acquaintance with it, excellence at Billiards is not now attainable.

The hazard is most easily obtained when the white, or striker's ball, is about eight or nine inches from the red (on the spot), and in such a position that a straight line drawn from one of the top corner pockets to the red ball, and produced beyond, would touch it.

When they are exactly straight—that is, when the line we have imagined would run through the centre of both balls—the hazard is best made with the screw-back. The red is to be struck quite in the centre with just sufficient strength to carry it into the pocket, and the player's own ball hit below the centre, the cue being held firmly and drawn back sharply at the instant of striking. This is the old-fashioned way of making the hazard, but it is none the less the best and safest, and, with practice, a dozen strokes in succession ought to be made by an amateur; and there are many young players who think they know something of Billiards to whom a break of thirty-six is a rarity.

Next to the screw-back, there is the stroke necessary when the white is a little too near the top cushion—say one inch out of the straight. This time the player's ball, hit exactly in the centre, should be played very gently on to the red—so gently as only just to drop it into the pocket—and the white will take an exactly similar position on the other side of the spot, and the stroke can be repeated.

These two are the spot-strokes proper, and all others are merely to recover position when the white happens to be too high up, or too low down the table, or too near to, or too far behind, the red.

Because, be it understood, when the striker's ball and the object-ball are within two are three inches of each other, it is hardly possible to play a "following ball"—at least, with any certainty; and when the white is close to either of the side cushions, the screw-back is immensely difficult, even for a first-rate player. Of course, it is to be done, but not with safety.

The great thing to be observed in hazard-striking, and particularly in such a delicate matter as scoring from the spot, is having confidence in yourself. There must be no hesitation, no hankering after a cannon, should your opponent's ball be close by; no indecision as to strength; and lastly, no uncertain hitting. The grasp should be at once firm as steel and soft as velvet.

Now to come to the "recovering-position" strokes. Supposing that, in screwing back, the player hit his own ball too hard, and, consequently, instead of being about eight or ten inches behind the red, he is about that distance from the side cushion, the play is as follows:—

Strike the white above the centre (full on to the red) with a little "side" on to the top cushion, sufficiently hard for it to follow the red; strike the top cushion about a foot from the pocket, rebound on to the side cushion close to the pocket, and from thence to a position about ten inches behind the spot on the opposite side to that from which the stroke was made. Position having been thus attained, the spot-stroke can be continued, as in either of the first two examples.

Supposing that, in screwing, the white ball should not recoil more than two or three inches (or, at most, five inches) from the spot, it is the proper play to screw again, as the "following ball" cannot be effected.

Then, in the cases of losing position by the white stopping too near to, or too far from, the top cushion, and thus not leaving a straight hazard, the following hints will be found useful in recovering the lost position:—

If the white be left about two feet from both top and side cushion—the white being then the fourth corner of an imaginary square, the top corner pocket being the opposite—it will be necessary to "cut" the red in, and, at the same time, put on as much "side" as possible to the top cushion. This will bring the white ball back—on the same side of the spot—to the position of a straight hazard.

If, however, the white be within four or five inches of the red, and in about the same direction as in the last example, the hazard is made more safely and easily by putting on a

good deal of "side" away from the top cushion. This will bring the ball to the opposite side of the spot, and leave a straight hazard, to be dealt with as previously directed.

When the white is too near the top cushion for the straight hazard, the stroke is still to be made by playing with some considerable "side" *to* the top cushion, and hitting the white rather high, with a quiet, flowing stroke.

These few general instructions will be found of great use, if steadily and perseveringly adhered to. In making the spot-stroke, play as firmly and gently as possible, as a single jerky or nervous stroke will lose position irretrievably; and recollect that "strength" cannot be taught without practice; and, indeed, without a patient and earnest study of the same "strength" the effects described as resulting from certain play will be altogether marred.

When position is quite lost, play for the Losing Hazard off the red, and with sufficient strength to bring the object-ball down to the middle pocket, and thereby leave another "red loser."

Generally speaking little "side" is required for the spot-stroke; though occasionally it will be found not only necessary but almost indispensable.

CHAPTER X.

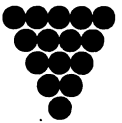
THE PYRAMID GAMES.

THERE are several ways of playing this favourite game; but the most popular is that known as

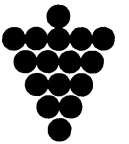
PYRAMIDS OR PYRAMID POOL.

It is played by two or four players—usually the former; in the latter case they play partners, two and two, and take alternate strokes. Both players use the same ball, and the

object is to make Winning Hazards. Fifteen or sixteen balls are arranged in a pyramid, thus :—



or thus,



The ball with which the strikers play is white, when the balls which form the pyramid are coloured, and *vice versâ*. Usually the pyramid-balls are red, and the striker's white.

The player who succeeds in making the majority of Winning Hazards wins the game. Thus, when fifteen balls form the pyramid, the maker of eight hazards wins ; when of sixteen, the last hazard counting double, the maker of nine.

When there are only three balls left on the table, the striker who makes the next Winning Hazard keeps the original playing-ball, but his opponent plays with the remaining ball.

The pyramid is so placed on the table that the first ball—that nearest the baulk—is on the winning spot midway between the centre pockets and the top cushion.

The original lead is determined—when the players start level—by chance ; after the first game it is usual for the winner of the previous game to commence the next. When odds are given, he who receives them commences.

The first player plays from the baulk-circle, and should he fail to pocket a ball, his opponent goes on. After making a Winning Hazard, the player strikes at any other ball he pleases, and continues his break until he ceases to score, the eventual winner being he who has taken the greatest number of balls, after allowing for losses.

The player scores one point for every Winning Hazard, and loses one for every Losing Hazard. When from the same stroke both Winning and Losing Hazards result, the ball or balls put in are replaced, and the striker loses one just as if no object-ball went in at all. He also loses one for each miss, *coup* (running into a pocket without striking a ball), and for every time his own is forced off the table.

For the other regulations, etc., the rules appended must be consulted.

THE LAWS OF PYRAMIDS.

I.—This game may be played with any number of balls—generally sixteen; viz., fifteen red and one white.

II.—In "setting the balls" at the commencement of the game, they are to be placed on the table in form of a triangle or pyramid; the first ball to stand on the *winning* spot.

[By placing the balls thus, the apex-ball of the pyramid will face the baulk, and be in front of the player. Where only fifteen balls form the pyramid, the base will be a straight line. It is usual to have a triangular box for the balls. This box has a sliding bottom, which, when the pyramid has been placed on the table, is removed from beneath the balls. A mere triangular frame of wood will, however, serve to adjust the pyramid.]

III.—If more than two persons play, and their number is odd, each plays alternately; the rotation to be decided by stringing. The player pocketing the greater number of balls to receive from each of the others (a certain sum per ball having been agreed upon) the difference between their lives and his.

[In general practice pyramids is played by two persons; or by four, in sides of two each. In this case, each partner may advise the other.]

IV.—If the number of players be even, they may form sides, when the partners either play alternately or go out upon a hazard, miss, etc., being made, as previously agreed.

[In any case, the player goes on with his break as long as he can score.]

V.—The players string for choice of lead; then the leader places his ball (the white) within the baulk semicircle, and plays at the pyramid.

[Of course the player may start from any part of the semicircle. If he succeed in making a Winning Hazard, he plays at any ball he may select, and so on as long as he can score.]

VI.—The next striker plays the white ball from the spot on which it rests after his opponent has made his stroke; but if the ball should be off the table, it must be played from baulk, as at the commencement.

[Whenever the playing-ball is pocketed or forced off the table, it is in hand, and must be played by the next striker from baulk.]

VII.—None but Winning Hazards count towards the striker's game; one point or life is reckoned for each Winning Hazard, and he who pockets the greatest number of balls wins.

[The rules with regard to foul strokes, etc., are the same as in pool.]

VIII.—The player *loses* a point if he pocket the white ball, or force it over the table, give a miss, or run a coup.

[In such a case one point is taken from the player's score, if he have made any, and a ball is replaced on the table; but if he has made no points, he is said to "owe one"—or two, or more, as the case may be—and the next ball, or balls, he takes is placed on the table.]

IX.—For every Losing Hazard, miss, or coup made by the player, a point is to be taken from his score, and a ball replaced on the pyramid-spot; but if that spot be occupied, the ball must be placed immediately behind it.

[When two or more balls be wrongly pocketed, it is usual to place the first on the winning or pyramid-spot, and the others in a line behind it.]

X.—If the striker pocket his own ball, or force it over the table, *and by the same stroke* pocket one or more of the pyramid-balls, or force them over the table, he gains nothing by the stroke; the pyramid-balls so pocketed must be replaced on the table, together with one of the balls previously taken by the player.

[The penalty in this case is the loss of a point, and the replacing of the balls pocketed. The next player then goes on from baulk.]

XI.—Should the striker losing a ball not have taken one, the first he pockets must be placed on the table, as in Rule IX.; should he not take one during the game, he must pay the price of a life for each ball so forfeited.

[This has already been explained in the note to Law VIII.]

XII.—If the playing-ball touch a pyramid-ball, the striker

may score all the pyramid-balls he pockets, but he cannot give a miss without forfeiting a point.

[Balls touching each other are not deemed foul, as in Billiards; and the player in such case may play at any ball he chooses.]

XIII.—Should the striker move any ball in taking aim or striking, he loses all he might otherwise have gained by the stroke.

[It is a foul stroke, and the next player goes on. The penalty for moving a ball, either with cue or person, is that the striker cannot score.]

XIV.—If the striker force one or more of the pyramid-balls over the table, he scores one for each, the same as if he had pocketed them.

[In some clubs and public-rooms, a ball purposely forced over the table does not count. But generally Law XIV. is adhered to. Any departure from this rule must be by agreement among the players.]

XV.—If the game be played with an even number of balls, the last hazard counts one; if with an odd number, it counts two.

[This is to prevent a tie between the players.]

XVI.—When all the pyramid-balls but one are pocketed, the player who made the last hazard continues to play with the white ball, and his opponent with the red; each playing alternately, as at single pool.

[If the last player give a miss, a point is taken from his score, not added to that of his opponent.]

XVII.—When only two balls remain on the table, with two persons playing, should the striker pocket his ball, or make a miss, the game is finished; if there are more than two players, and they not partners, the striker places a ball on the spot, as in Rule IX.

XVIII.—All disputes are to be decided by the marker; or, if he be interested in the game, as a player or wagerer, by the majority of the company.

XIX.—The charge for the table is to be deducted from the pool, before handing it over to the winner.

[In public rooms only.]

HOW TO PLAY.

With regard to the way in which the first player should break the pyramid, there are various opinions among players. Cautious men usually play at one of the side balls, so as to bring back the playing-ball into baulk, after it has struck the top or side cushions. Others are more venturesome, and play boldly at the first ball of the pyramid, so as to scatter all the balls, and take the chance of one of them flying into a pocket. The way to make this stroke with the greatest chance of success is to hold the cue with the thumb above—the contrary method to that ordinarily observed—and drive full and hard at the apex-ball of the pyramid. This is called the smash, and is sometimes very successful. I have seen as many as three or four balls pocketed by this plan. But if your opponent is a good hazard-striker, and you do happen to fail in pocketing a ball by the stroke, your chance of the game is rather small, as there are sure to be several hazards left on the table.

Be sure, if you do try the smash, that you do strike the apex-ball full in the centre, with a free, hard, following top-stroke, without the least "side" on your ball. Throw the whole force of your arm and shoulder into the stroke, and you will most probably see a ball or two run madly into a pocket, or topple over the table. But then you must be prepared sometimes to see your ball follow after some of the balls to the floor; in which case, of course, you lose all the Winning Hazards you may have made, and incur the penalty of a miss in the bargain. You will then "owe one," and the first ball you pocket will be replaced on the table in payment of your debt.

Brilliant hazard-striking is quite useless in pyramids, without the player has a due regard for safety. When—as often happens—a good opening occurs, the player should be prepared to take advantage of it. The table is often cleared by a player who chances to find his ball in the middle of a ruck of others after a smash. To play well requires constant practice.

It is not every man who can coolly see the game sliding away, while he knows, or feels, that his opponent is an inferior player to himself, and that his score owes more to flukes than to judgment. In such a case the player must be wary, and never throw away a chance. When he has a hazard before him, let him make it; but if he cannot fairly calculate upon scoring, his best plan is to lodge his ball well under a cushion,

so that his opponent may have to play from a cramped position.

There is this, however, to be said, that luck seldom stays by a man for a whole evening, and that steady play generally breaks the back of it before long. The pool and pyramid player must accustom himself to deliver his ball with a sudden and determined energy; generally hitting below the centre, and always playing for a well-defined object. Play, too, with such strength as to bring your ball away from the centre of the table; and when there is a cut, or a straight hazard that may be safely tried, try it, especially if the remainder of the balls are at the other end of the table. The good pyramid player makes his own game, and endeavours to mar that of his opponent.

Pyramids need not be played for money; though, when it is played for "love" merely, it is, perhaps, not equal in interest to Billiards. Moreover, there is this danger to regular players at the pool games: always playing Winning Hazards is apt to unfit them for regular Billiards.

LOSING PYRAMIDS.

The Losing Pyramid is now seldom played, though it is by no means an uninteresting game, and is of comparatively modern introduction. The pyramid is made of fifteen or sixteen balls, as before; and each player uses the same striking-ball. Points are made by Losing Hazards, off any ball of the pyramid, and every Winning Hazard, miss, or coup, scores against the player. The first striker plays from baulk, which, after the first stroke, is no protection. For every Losing Hazard he can make into any pocket, he takes a ball from the pyramid. When the pyramid is broken, he can remove from the table any ball he chooses. This game may be played by two or more persons, and the one who makes the greatest number of Losing Hazards wins. When only two balls remain, the game is played out as a Single Losing Hazard Pool.

SHELL-OUT.

This is a simple and amusing way of playing pyramids, especially in a large party. The balls are placed on the table in the usual way, and the players take alternate strokes

according to their order, as arranged previous to the beginning of the game. All play with the same ball. The first player strikes at the pyramid from baulk, and if he succeed in pocketing a ball, he continues his break by playing at any other ball he may choose, till he fail to score. The next player then makes his stroke with the ball from the place where it was left by the previous striker. Should he be successful in making a Winning Hazard, he continues his break as usual, and so on with all the players while any balls remain on the table. When only two are left, the balls are *not* changed as each player makes his stroke. All the players remain in the game till the last hazard is made, which concludes the game. There is no subscribed stake or pool; but for every Winning Hazard he makes the player *receives* a penny from each of the other players; and for each Losing Hazard, miss, or coup, he *pays* a penny to each of the other players. Thus, suppose ten persons play at "shell-out," the player receives or pays ninepence for every Winning or Losing Hazard. Of course, the stake per ball may be increased; though, for all purposes of amusement—especially when ladies play—a penny will be found quite enough; as even at that a careless player may lose eighteenpence or two shillings a game. In practice, however, the game is harmless enough, so far as the coppers go; as the taking of a single ball furnishes the player with sufficient cash to pay for several other hazards. The rules with regard to foul strokes, etc., are the same as in pyramids.

CHAPTER XI.

POOL.

THE game of pool is perhaps, next to Billiards proper, the most favourite game that is played on the Billiard-table.

Pool is played in several ways: as with two balls, each striker playing in turn, called Single Pool—playing at any ball the striker chooses, as in pyramids; and playing at the

last player, each striker having a coloured or numbered ball.

The last is the most popular and scientific game, and the one which needs fullest description. It is known universally in Great Britain as pool, and may be played by two or more persons. Seven or eight, however, is the best number.

When the amount of the stake to be played for is determined, each player has given to him a ball distinguished by a colour or number—usually a colour; and at starting he has three chances or "lives." In public rooms the pool is usually three shillings, and the lives one shilling each; though, of course, both pool and lives may be increased or decreased at the pleasure of the players. The charge for the table is deducted from the sum-total of the stakes at the end of the game: threepence a ball is the usual charge for the table in public rooms.

Each player being provided with a ball, the white is placed on the spot at the end opposite to the baulk, and the red plays at it from the baulk semicircle. If the player pocket the white, he receives the price of a life from the owner of the white; but if he fail to make the Winning Hazard, the next player, the yellow, plays upon him; and so on alternately, till there are only two players left in the pool—the rest having lost all their lives. These two players may either, if they have each an equal number of lives, divide the stakes or play out the pool till one wins the whole sum staked. It is usual for the last player, if he has an equality of lives with the one who precedes him, to claim a "division;" the latter then ceases to play, and the stakes, minus the charge for the table, are divided between them. The order of the balls and the players is generally as follows:—

The	White-ball	is	spotted.
„	Red-ball	plays upon	White.
„	Yellow	„	Red.
„	Blue	„	Yellow.
„	Brown	„	Blue.
„	Green	„	Brown.
„	Black	„	Green.
„	Spot-white	„	Black.
„	White	„	Spot-white,

and so on, if a greater number play. Each player should remember the order of his play; but it is usual for the marker or umpire to call the game thus:—"Red upon white, and

yellow's your player;" "yellow upon red, and blue's your player."

When a player takes a life—that is, pockets the ball he plays upon—he then plays at the ball nearest to his own ball, when it has ceased to roll; and if he also pocket that, he plays again upon the nearest ball; and so on, as long as he can continue to score. The player *loses* a life, *to the player whose ball he aims at*, if he run into a pocket, and make a Losing Hazard after contact, or if he make a coup, or force his own ball off the table; and he *wins* a life for every ball he legally pockets or forces off the table. The price of each life is paid by the player losing it, immediately the stroke is made. When any player has lost all his lives, he may *star*, or purchase as many lives as is possessed by the player lowest in number. Thus, if the smallest number on the marking-board be *one*, the purchaser of the *star* has one fresh life given him; and for this *star* he pays an amount equal to his original stake. If the lowest number be *two*, the *star* has two lives.

THE LAWS OF POOL.

The remarks within brackets are intended to assist the amateur in fully comprehending the game.

I.—When coloured balls are used, the players must play progressively, as the colours are placed on the pool marking-board, the top colour being No. 1.

[In practice, coloured balls are almost invariably employed.]

II.—Each player has *three* lives at starting. No. 1 places his ball on the "winning and losing" spot; No. 2 plays at No. 1, No. 3 at No. 2, and so on—each person playing at the last ball, unless the striker's ball be in hand, when he plays at the nearest ball.

[If it should happen—as it often does—that the white or any other ball is pocketed before it has had a stroke, it is played from baulk, when its turn comes, at its proper ball; or if that is in hand, at the ball nearest the centre-spot on the baulk-line.]

III.—When a striker loses a life, the next in rotation plays at the ball nearest to his own. But if this player's ball be in hand, he plays at the ball nearest to the centre of the baulk-line, whether it be in or out of baulk.

IV.—When any doubt arises as to the nearest ball, the

marker measures the distance, and the player strikes at the ball declared to be nearest his own.

V.—The baulk is no protection.

[The meaning of this is, that the player whose ball is in hand may play from the *semicircle* at any ball within the *baulk-line*, supposing such ball to be nearest to the centre spot.]

VI.—The player loses a life: by pocketing his own ball off another; by running a coup; by missing the ball played on; by forcing his ball off the table; by playing *with* the wrong ball; by playing *at* the wrong ball; by playing out of his turn; by striking the wrong ball; or by having his ball pocketed by the next striker.

[Except he be wrongly informed by the marker or umpire as to his turn to play: in such a case he would *not* lose a life.]

VII.—Should the striker pocket the ball he plays at, and by the same stroke pocket his own, or force it over the table, he *loses* a life, and not the person whose ball he pocketed.

[The ball so pocketed remains in hand till the striker's turn to play arrives.]

VIII.—Should the player strike the wrong ball, he pays the same forfeit to the person whose ball he should have played at as he would have done if he had pocketed his own ball.

[That is to say, the player whose ball *ought* to have been struck, receives a life of the striker who makes the mistake; always excepting a case in which he has been wrongly informed as to the proper ball to play at.]

IX.—If the striker miss the ball he ought to play at, and by the same stroke pocket another ball, *he* loses a life, and not the person whose ball he pocketed; in which case the striker's ball must be taken up, and both balls remain in hand until it be their several turns to play.

X.—If the player inquire as to which is his ball, or if it be his turn to play, the marker, or the players, must give him the information sought.

[It would be manifestly unfair to allow a striker to play at, or with, the wrong ball.]

XI.—If the striker, while taking aim, inquire which is the ball he ought to play at, and should be misinformed by the marker, or by any of the company, he does *not* lose a life.

His ball must, in this case, be replaced, and the stroke played again.

[The more common plan is for the ball so played to remain in hand till the striker's turn arrive.]

XII.—When a ball, or balls, touch the striker's ball, or are in line between it and the ball he has to play at, so that it will prevent him hitting *any part of the object-ball*, such ball or balls must be taken up until the stroke be played; and after the balls have ceased running, they must be replaced.

[When a ball is required to be taken up, it is the business of the marker to mark the precise spot occupied by each ball removed. This is done with a wet finger, or with the point of the chalked cue.]

XIII.—If a ball, or balls, are in the way of a striker's cue, so that he cannot play at his ball, he can have them taken up.

[This is a wide direction. The plan in practice is to allow any ball to be removed which interferes with the free action of the striker's hand or arm, or which prevents his making a full stroke apon the object-ball. "Any" ball of course means "every" ball that may so interfere with the free play of the striker. Thus, if his ball be angled, he may insist on the removal of any or every ball which prevents his playing from a cushion on to the object-ball. In some clubs and public rooms an angled ball is allowed to be removed an inch or two from the corner; but with a ball so removed the striker cannot take a life.]

XIV.—When the striker *takes* a life, he continues to play on as long as he can make a Winning Hazard, or until the balls are all off the table; in which latter case he places his own ball on the spot as at the commencement.

[The player *wins* a life by pocketing the object-ball, or forcing it off the table. In some clubs it has been decided —of course by agreement of all the players—that the forcing of a ball off the table shall not entitle the player to a life.]

XV.—The first player who loses his three lives is entitled to purchase, or star, by paying into the pool a sum equal to his original stake, for which he receives lives equal in number to the lowest number of lives on the board.

[Thus, if the pool is a shilling each, the player who stars pays a shilling for the privilege.]

XVI.—If the player first out refuse to star, the second player out may do so: but if the second refuse, the third

may star; and so on, until only two players are left in the pool, when the privilege of starring ceases.

[In practice, when three players are left in the pool, the first out stars, when by so doing he obtains an equal number of lives to the others; but if he be a good player, he stars one life to the two each of the other players; and if one have two lives, and the other one, he would probably star, especially if he has to play upon the ball with the higher number.]

XVII.—Only one star is allowed in a pool.

[In home games, however, two or three stars are sometimes allowed, to give greater zest to the pool.]

XVIII.—If the striker move his own or any other ball, *while in the act of striking*, the stroke is foul; and if by the same stroke he pocket a ball, or force it off the table, the owner of that ball does not lose a life, and the ball so pocketed must be placed on its original spot. But if by that foul stroke the player pocket his own ball, or force it off the table, he *loses* a life.

[A ball moved by accident is generally considered foul, and the striker does not lose a life; but he is not allowed to take one by that stroke.]

XIX.—If the striker's ball touch the one he has to play at, he is at liberty either to play at it or at any other ball on the table, and such stroke is not to be considered foul; in such a case, however, the striker loses a life by running his ball into a pocket, or forcing it over the table.

[If the striker play at the ball which touches his own, he may simply move it by playing gently at his own ball, or he may play his ball away to the cushion without forfeiting a life. When balls are believed to touch, the marker should be appealed to before the stroke is made, in order to prevent any after-question as to the correctness of the stroke.]

XX.—If, after making a hazard, the striker take up his ball, or stop it before it has done running, he cannot claim the life for the ball pocketed.

[The reason for this law is that the ball so stopped or taken up might have run into a pocket.]

XXI.—If, before a star, two or more balls, each having one life, are pocketed by the same stroke, the owner of the first ball struck can star; but if he refuse, the other player whose ball was pocketed may star.

[This law is to determine the priority of the players to the privilege of starring.]

XXII.—Should the striker's ball stop on the place from which a ball has been taken up, the ball which has been removed must remain in hand until the spot is unoccupied, when it is to be replaced.

XXIII.—Should the striker's ball miss the ball played at, no person, except the striker, is allowed to stop the ball till it has ceased running, or struck another ball.

[Of course the striker, having lost a life, may stop his ball as soon as the miss is made; but no other person may stop it, as it may possibly hit the object-ball before it had ceased running.]

XXIV.—Should the striker have his next player's ball removed, and his own ball stop on the spot it occupied, the next player must give a miss from baulk, for which miss he does not lose a life.

[In some rooms the player may have the ball taken up, and place his own on the spot so occupied, the next player replacing his ball when the spot is unoccupied. This appears the fairest plan.]

XXV.—When a ball has been taken up, and any other than the next player's ball stop on the spot it occupied, the ball so taken up must remain in hand till it can be replaced. But if it be the turn of the ball in hand to play before the one occupying its proper place, the latter must be taken up till there be room to replace it.

XXVI.—If the corner of the cushion should prevent the striker from playing in a direct line, he can have any ball removed for the purpose of playing at the object-ball from a cushion.

["Any" includes "every," if need be, except the player's ball and the object-ball, as already explained in my note to Law XIII.]

XXVII.—When three players, each with one life, remain in a pool, and the striker makes a miss, the other two divide without a stroke.

[This law is intended to meet a possible case of two players combining to take advantage of the third. If the ball belonging to C were over a pocket, B might miss A, in order to allow him to play upon C, and so claim the whole pool. But with the law as I give it, such an unfair proceeding is impossible.]

XXVIII.—Neither of the last two players can star; but if they are left with an equal number of lives each, they may

either divide the pool, or play it out; the striker, however, is entitled to his stroke before the division.

XXIX.—All disputes are to be decided by the majority of players.

SINGLE POOL.

This game is played by two players, each with a ball; for a stake on the lives, usually three and a pool. The taker of the majority of lives wins; and the laws common to pool govern this not very lively *partie*, which is usually played rather as an exhibition of skill than an amusement. In this, as in pool proper, the player who adopts "safety" as his motto stands the better chance of winning. Never play for a doubtful hazard, and always endeavour to lodge your opponent's ball under the cushion, at a safe distance from your own, and endeavour rather to double it than to make long Winning Hazards; as in the one case you stand a better chance of calculating upon the place of your own ball than in the other.

GENERAL OBSERVATIONS.

Play for safety, unless there is a direct or probable hazard on the table. Look well to your position with regard both to the ball you have to play upon and the ball that is to play upon you. When your player is in the middle of the table, and there is no easy hazard, play upon your object-ball with just sufficient strength to carry you well under a cushion, as far distant from your player as possible. But you must also beware of laying yourself under a cushion in such a position as to give your player an opportunity of pocketing you with a fine cut. Some players, poor at a direct straight hazard, are excellent at a cut. I would not advise too much caution, however, or the game is likely to be slow and uninteresting. Play cautiously when you have a first-rate Winning Hazard-striker behind you, and play boldly when you have no particular fear of your player. When you can give your player a good wide berth, and at the same time strike your ball with such calculated strength as to be pretty sure of the place at which it will stop; when you can play at a distant ball, and stop your own at or about the point of concussion; when you can cut a ball clean into a pocket, and so play your ball that after taking one life you are prepared to take another —then you will be able to hold your own against all comers.

When your player lies safely under a cushion, then you may play at the object-ball without much fear; but, as a rule, play so as to leave your own ball as far from your adversary as you can after your stroke. The side-stroke is not much required at pool, though occasions will arise in which it may be judiciously employed. Division of the object-ball, rather than "side," will generally be found most useful. In playing at the white on the spot, either hit your ball low, so as to make it stop at the end of the table, or gently, so that it may roll towards the cushion between the middle and top pocket. When your ball lies in the midst of several others, and there seems no easy plan of getting away with safety, play boldly for a hazard; and when you have taken a life, play either at the nearest ball for a hazard, or run off it gently to the cushion.

I know men—as doubtless you do, my young friends—who play pool regularly; and, without being particularly good hazard-strikers, contrive to win a great deal more than they lose. I do not refer to the eagle-eyed, closely shaven, neat, and quietly polite men—French or German generally—with whom pool-playing is a profession; nor to the raffish-looking sharps who infest public rooms, to the annoyance and disgust of respectable people—but to those to whom pool is an amusement and a rational exercise: men who follow reputable professions and callings during the day, and only take a ball at eighteenpenny pool in the evening, as others take a hand at whist or cribbage, for the sake of a little mild and inexpensive excitement. Players of this stamp never lose much. They do not hit the balls wildly about the table, and go in for luck, but play steadily and good-temperedly, and are always respected by the members of their clubs, and welcome in every Billiard-room they chance to visit.

CHAPTER XII.

CRAMP AND TRICK STROKES—PROFESSIONAL PLAYERS—BETTING.

BY *cramp-strokes* I do not mean *trick-strokes*. Cramp-strokes, properly played, are often of very great utility in redeeming an otherwise lost game, and in turning an

unpromising break into a good one. By cramp-strokes I understand violent screws and twists, pushes, kisses, very strong side-strokes, and almost imperceptible touches, together with many other *tours-de-cue* which are only to be acquired by dint of long practice, and cannot really be described on paper. *Trick-strokes* are generally acquired by rooks and Billiard-sharps as a means of betting. One of the most common of the trick-strokes is the *dip*. The ball is struck on the top, or nearly so, with a well-raised finely-tipped cue; and if the stroke is neatly made, the ball rises a little from the table, and, instead of rolling, flies sharply along, and only rolls when it drops. It is with a stroke of this kind that the cannon is made from one table on to two balls on another table—a stroke which was once considered so wonderful, that it was talked of in every club and public room, and thousands of people went to a well-known tavern to see a young German make it; now, however, that every player of any power of cue can master it, nobody cares anything about it. By the *dip* the sharper makes the well-known betting-stroke of striking a ball between, or rather over, two balls placed less than a ball apart from each other.

By a strong side-stroke kiss is made the *pool-basket stroke*, a really clever performance. A ball is placed close to the cushion on either side of the middle pocket, and between the two is put the pool-basket or a hat. The player then strikes his ball from the opposite side of the table, at a short angle, and with a screw and strong side-stroke causes his ball to force away the object-ball, kiss on to the cushion, curve round the basket, and cannon on the other ball.

Then there is the sharper's stroke of placing three balls in a line across the centre of the table, and betting that he will pocket the one over the cushion without touching the centre ball. The bet taken, he puts a hat over the centre ball, and by striking the hat with his ball, knocks the other ball into the pocket.

Again, there is the trick of placing a ball close over the middle pocket, and betting half a crown he will pocket the ball, and a shilling he knocks off the brass—a little arrangement by which the sharper robs the verdant youth who bets with him of eighteenpence; for he *does* pocket his ball, and he does *not* knock off the brass. These and numerous like strokes are practised by men who carry a bit of chalk in their pockets, and are particularly familiar with the marker. It is scarcely necessary to say that such men are to be avoided.

The professional players all began playing Billiards as children. They have been playing Billiards ever since; and they, consequently, know little else but Billiards. Before they could read a line or spell a word, they could handle a cue with dexterity; and they are now—what wonder?—at the top of their trade. The same amount of persevering study and application—given the brains—would have been sufficient to have taught them half a dozen languages and at least a score of ologies. The strokes which, in their hands, seem so pretty and so easy, have been acquired by hours and days and weeks of constant, unremitting, painful practice. With gentlemen such excellence is neither necessary nor desirable. Billiards is—at least for them—an amusement, a game, a diversion from real study, not a calling. It takes almost as long a period and as severe a discipline to train a Champion Billiard-player as to make a Cambridge First Wrangler. But oh, the difference! A First Wranglership opens the way to the highest offices in the Church, the State, and the professions. A Billiard Championship is, at best, but a passport to late hours and fleeting popularity, too often accompanied by ignorance, vulgarity, and that unenviable knowledge of the world which stamps a man as anything but a gentleman.

"Billiards is an excellent game; but, like other excellent things, it is apt to be abused by unprincipled men. Whenever you meet a smart-looking fellow in a public room, who offers wagers against your making certain strokes which he can accomplish, treat him with civility, but don't bet with him. Take any advice from him, but *don't bet*. A game or two with him, for "love," will, perhaps, not be bad practice. He may not be a "sharp," but if he gets his living by Billiards, he is not a man to know intimately. Avoid the clever fellows who carry a piece of chalk in their waistcoat pockets, have a favourite cue, and call the marker by his Christian name. Some of them are members of good clubs; but they are dangerous. I remember a good-looking, well-spoken fellow, who was for years reckoned simply as an excellent player. But it was observed that only youngsters and strangers played with him for high stakes. He had the run of half a dozen clubs, and nobody had anything to say against him. One night he was introduced to a club where I happened to be playing pool. He took a ball and played indifferently well, now and then dividing a pool. When the pool was over, somebody challenged him for a game at Billiards, and he played. I sat down and looked on, saying

nothing. Before the match was over the chevalier had won many pounds. He was certainly very lucky, and appeared always to improve in his play as the game went against him, and the betting got higher. I was interested, and watched intently, but could discover nothing unfair : I noticed, however, that he seldom or never played at the white ball, and that in each game he had the spot-ball. But I thought nothing of that ; many players preferring to try a hazard or cannon off the red rather than pocket an opponent's ball. And so the match went on, till there were a good many lookers-on at the game At last, the chevalier's opponent, wishing to leave the room for a little while, requested me to finish the game for him. I consented, and played the next stroke with the ball left by my friend on the table. I had hardly played half a dozen strokes, when the secret of the chevalier's extraordinary success was revealed to me. *He had changed the balls*, substituting for the true white ball one which was faulty in its weight and roll. This gave him a certain advantage over his opponent; and being a good player, he won as often as he liked!" Many a professional, like the "lion of the room" in Paris, can make wonderful strokes behind his back or with an unleathered walking-stick.

If the truth must be told—and there is no reason why it should not be—the majority of matches played between professional players are arranged before the play begins : the moral of which is—*don't bet!*

It is usual to talk of side-stroke as though there were some great mystery in it, only to be solved after years of research and a lifetime of practice. Nothing of the kind. The "side" is used by all players, often without their being aware of the fact ; and it is only when it is persistently and purposely employed that its peculiar action is observable. Professional players use the side-stroke for many hazards and cannons, which would be better made in the ordinary way. This is the abuse of "side;" which, like other abuses, is to be condemned.

By "professional" players, of course, I mean those players who get their living at Billiards. They are all of them, necessarily, good players ; and they are all of them acquainted with tricks and dodges with the cue, which, though useful enough occasionally, are more frequently employed for disreputable purposes than for the legitimate ends of the game. Tyros should beware of these gentry, and be parteicularly careful not to lay wagers against apparently impossible

strokes; for, depend upon it, no marker, or professional player, ever offers to make a wager he is not pretty certain to win. And they really deserve to win; for the trick-strokes they show you are only to be acquired by dint of immense practice, and a thorough knowledge of the practical effect of "side."

CHAPTER XIII.

HOW TO PLAY A BREAK SUCCESSFULLY.

IN Billiards—by which term I mean the ordinary game of cannons and pockets—the real secret is to keep the balls before you, and to make as long a score as possible.

It is weak play to pocket your adversary, except when you want to keep the baulk or finish the game. There are, of course, positions in which it would be good policy to pocket the white ball; but as, by so doing, you leave only one (the red) to play at, you reduce your chances by just one half. When, however, you can at the same stroke make a cannon and pocket the white, or when you can make a four-stroke by a double hazard, then I should say, do not allow any scruple of its being, or not being, the game deter you from adding to your score. Leave no chance to your opponent that you can fairly prevent.

If you are uncertain about your side-stroke, do not attempt to give the miss from the side cushion, but play at the red, and endeavour to bring your own ball into baulk. Place your ball on one of the end-spots of the baulk semicircle, and strike the red by a half-ball; the blow being given to your own ball just above its centre. This will bring your ball back again into baulk, and leave the red under the side cushion, just above the middle pocket. Practise this stroke, as it depends entirely on its strength whether your ball will stop in the baulk, or rebound from the baulk cushion again. It is by no means difficult to bring both balls into baulk. A half-ball on the red, pretty swiftly, will send each ball against opposite side cushions after contact, when they

will cross each other's lines at about the centre of the table, and drop quietly below the baulk-line.

Many players endeavour, at the beginning of the game, to score off the red, either by cutting it into the corner or going in off it with a heavy side-screw. If your opponent is your equal in play, the experiment is risky, as you are pretty sure to leave a cannon if you miss the hazard.

Every stroke should be made with a definite object; and if there is no hazard or cannon apparent, play to leave yourself safe. Never strike at the balls at random.

When you play back from the top cushion, to strike a ball, or to make a cannon in baulk, remember the axiom—the angles of incidence and reflection are equal to each other. You may either play at the top cushion by a single reverberation, or you may play with sufficient strength to make your ball travel twice up and down the table. Sometimes a little "side" may have been unconsciously placed on your ball, which will cause it to diverge a little to the right or left after striking the cushion; and as the angle widens, you may get the cannon or hazard. Always look well to the position occupied by your opponent's ball before making a stroke of his kind, so that if you fail, your own ball may be safe.

It is often good policy, when you cannot score, to gently strike your opponent's ball or the red, so as to leave it under the cushion or near a corner-pocket.

With your opponent's ball off the table, it is generally advisable, when there is no probable score off the red, to run your ball into baulk off the red, and if possible lodge the red also within the baulk-line.

When your opponent's ball is close under the cushion, play at the red for a cannon or hazard. Many a game is lost by playing at the wrong ball. As a general rule, play at the red when you are behind in the game, and at the white when you are ahead. But "general rules," you know, will only serve for "general purposes." Every stroke must be governed by the particular position of the balls; and in the *modus operandi* much must be left to the judgment of the player.

Be careful how you vary your style: without there is obvious reason for a high or a low stroke, a side-stroke or a screw, play an ordinary stroke, and divide the object-ball. Do not experimentalise without a direct purpose. "Slow and steady often wins the race," they say; though I cannot but think that the hare must have been very stupid to have let the tortoise beat him.

It is generally believed that there are at least fifteen points

gained by luck in every game of fifty up. Pay no attention to general belief, but always try to do your best; and then if luck come, accept it as you would an unexpected legacy. It is the weakest of weak hopes, however, to put faith in flukes. Nevertheless, no game is lost till it is won.

An advantageous miss, when you are under the cushion, may save your game. What player does not remember being at forty-eight when his opponent has been at forty-nine with a doubtful hazard? he gives a miss, and his adversary plays at the red, and generally fails to score; when of course the first player makes a cannon and wins.

Remember that it is not only the hazard before you that you have to make, but the hazards that will be left after your stroke. Good judgment in anticipating the consequences of your stroke is therefore a primary cause of success. White Winning Hazards should be played gently, so that, should you fail to make them, your opponent's ball may be left under the cushion. Red Winning Hazards should, on the contrary, be made with strength enough to bring the red ball away from the cushion, if you do not succeed in lodging it in the pocket. Knowledge of strengths is half the battle at Billiards.

When you get the balls together, play them carefully and make as many points as you can. The experienced player is often able to *make his opening* by a good all-round cannon, which may either leave a hazard after it, or, perhaps, another cannon; then if he happen to get the three balls pretty close together in a cluster, he may fairly reckon on a good break by a series of gentle cannons or easy hazards. A very favourite position of the balls is that in which the red lies just outside the baulk line, and the player's ball is in hand. In such a case a player can make from two to half a dozen hazards in a bottom corner pocket, by a succession of very gentle pushing strokes, with just sufficient force to carry the cue-ball into the pocket without materially altering the position of the object-ball. This requires considerable practice. If you play *too* easily, your ball will fail to reach the pocket, and a good opening will be left for your adversary, while if you play too hard, you will drive the red ball from its place and spoil the break. No side-stroke is necessary for this hazard, but the division of the object-ball must be so fine—that is, the amount of contact between the two balls must be so minute—as to enable the cue-ball to slide past the red, after barely touching it, straight into the pocket. You should strike your ball rather high, with a slightly flowing motion of

the arm, and then when the red ball at last gets so far above the baulk line as to make another hazard uncertain, play at it with ordinary power either for a jenny in the middle pocket or a cannon upon the white.

The great danger arising from a stroke of this kind is that power of execution may fail, and instead of making a good run, you leave the balls for your enemy, when, as they are close together, he is pretty sure to get a cannon, or even perhaps a double stroke. From a position such as this a fluke, or as the Americans call it, a "scratch"—I detest the slang of the game, but I cannot avoid it occasionally—is not unlikely to either win or lose you the match. Every hazard must therefore be made with calculated nicety, and all playing for chance or luck must be avoided. You need not be disheartened if you fail to make the stroke before you, for the game is never won till it is lost, and all hope should not be abandoned till the last hazard or cannon in the match is actually made, and scored upon the marking board.

In cannons and hazards made from the cushion, the player will do well to ascertain the condition of the india-rubber, and make his strokes harder or softer, according to their state of elasticity, or otherwise. Cushions vary very much with the weather, and the stroke that is possible in the morning, when they are in their normal state, may be almost impossible in the evening, when they have softened with the heat of the room. This variation is incident to all india-rubber cushions, more especially to those composed of what is known as vulcanized rubber; but for general play the variation is not sufficient to materially affect the game of a player who employs the ordinary power in making his strokes. The best cushions are, I believe, constructed of native rubber, covered with two thicknesses of cloth. But a little practice soon familiarises the player with the state of the table, and he varies his play according to circumstances, putting on more or less strength as more or less is found to be necessary.

I should not, perhaps, think it worth while to advert to this circumstance, but that some amateurs appear to consider that what they can do with certainty on one table they can accomplish with ease on another. This is a mistake against which I caution my readers, so that they may not be too sanguine of success when playing on a strange table. The following story is told of the introduction of india-rubber cushions:—A Billiard-table manufacturer, who was an excellent player, and quite capable of judging correctly respecting the precision of an angle, placed rubber cushions

on a table of his own, and proceeded before they were publicly exhibited to try their effect. The balls had not been many times struck before the incorrectness of the angle became apparent, and their immediate removal was contemplated. The table, however, having been engaged at a given hour, and the intervening time not allowing of their being replaced by others, the cushions were allowed to remain. The players arrived, and commenced their game. The speed—the extraordinary speed—filled them with amazement, and as the game went on their delight kept pace with their surprise. The inventor smiled, and said to himself: "If the public is pleased, the cushions may as well remain." But had the table upon which the experimental cushions were placed been first tested by scientific players, the absurdity would at once have been condemned; their removal would instantly have taken place; and cushions too fast to be correct would never have disgraced a game whose beauties and scientific properties are governed by, and wholly dependent upon, the truth of an angle. How wretched to a player possessing an eye accustomed to geometrical demonstration must appear the running of the balls when returning from cushions so palpably untrue; and how mortifying to witness the unfavourable result of a well-played stroke, that ought, with correctness of angle, to ensure the winning of a game!

It is now, however, too late in the day to talk of the incorrectness of india-rubber cushions, for they are universally adopted. Moreover, they have been so much improved by the best makers of Billiard-tables, that the objections urged are of less importance than they were a quarter of a century ago, and are becoming less and less every day. It may be that a ball striking at an angle of forty-five degrees, when the cushion is very warm, will glide off at an angle of thirty degrees when the cushions are cool, even if the force of the blow be in both cases identical; but such variations are not so particularly observable as might at first sight appear, from the fact that Billiards is seldom played in rooms susceptible of great variations of temperature, and that a hot iron passed over them in the morning brings them into condition in a few minutes, in which condition they remain throughout the day.

The young player is too often led away from the true method by the desire to make brilliant strokes. Nothing is more delusive than the practice of attempting difficult hazards. With a good knowledge of strengths, a player

with a tolerable command over his cue may succeed in making a score of six, eight, or ten hazards or cannons in succession, while his opponent—more desirous of showing how he can screw his ball back, put on a great quantity of "side," or play long and apparently impossible jennies—adds only half a dozen or so to his score.

CHAPTER XIV.

PRACTICE—FREEDOM IN PLAY—SHOULDER AND WRIST—EQUALITY OF ANGLES—ADVICE TO YOUNG PLAYERS.

THE mere alphabet of Billiards is of very easy acquirement, but something more is necessary to make a good player. A knowledge of principles is indispensable. Intelligent readers who have followed me so far—practising on the table, and trying to discover the reason for, and the philosophy of, every new stroke that presents itself—will not need to be reminded that the main principles of Billiards have already been set forth. Something more is however necessary. *Practice* is of the greatest use to the tyro, but unless he knows the reasons for his strokes, his practice loses half its value. For instance, when we *know* that a ball struck high travels swiftly over the table; that a flowing motion of the arm in the act of striking carries the player's ball after the object-ball; that a low stroke retards the progress of the ball; that a side stroke sends a ball from the cushion or the object-ball in a line of direction different from its natural angle; and that a sharp drawback motion of the arm makes a ball which is struck low return, after contact with the object-ball, towards the player, we have but little difficulty in making the proper stroke at the proper time.

Providing always—for in this, as in most other cases, there is an important saving clause—that the player strike his ball with freedom and ease.

SHOULDER AND WRIST.

When power is required, the stroke should be made by a free sweep of the arm, playing "from the shoulder," as it is called; but where accuracy of aim is important, then the player will do well to restrain his activity and play more from his elbow; not, however, as some recommend, by keeping the upper part of the arm in a fixed position at his side, but by striking the ball gently by the action of the arm below the elbow, and so obtaining complete control over cue and ball. Nervous players are proverbially uncertain, and to tell them to play "from the shoulder" is merely to give them a little advice as to greater freedom of action with the arm generally. There is, however, with some strikers, such a thing as too much freedom of play, and if they make the stroke "from the shoulder" rather than "from the elbow," they gain power at the sacrifice of exactness. A free play of the wrist is of the greatest importance, so that you may place your cue's point higher or lower, or put it on either side of the ball without disturbing the position of the arm while in the act of taking aim; for nothing is so destructive of all accuracy and finish in play as that restless see-sawing of the cue, that wavering of intention, that uncertain glance from ball to ball, and from ball to pocket, which with some becomes almost a fixed habit. Let me remind you, however, while recommending freedom of action in striking the ball, that play "from the shoulder" is apt to engender a loose, careless style, and that in most games the regular bowling stroke is more certain in its effects than the heavily-struck forcing stroke. Young players are especially apt to strike too hard. They like the bold, swinging action of the arm, and are pleased to see the ball fly straight and swift from the cue, and spring from cushion to cushion, and then, if they fluke a hazard or cannon, what is more pleasant than to gain the applause of the bystanders, even though they are conscious that it is not thoroughly deserved. *Juvenile vitium regere non posse impetum*, says Seneca—which, for the benefit of lady readers, may be translated: "It is the fault of youth that it cannot govern its own violence;" either not knowing or not considering where the danger lies.

EQUALITY OF ANGLES.

The angle of reflection is equal to the angle of incidence.

The axiom is to be taken as theoretically true, but practically capable of considerable modification—as we shall see if we test it on the table itself.

If you place a ball on the right-hand spot of the baulk-line and strike it fairly against the top cushion, nearly midway between the sides of the table, the ball so struck will rebound in a line counterpart to its original projection, and pass over the left-hand spot in the baulk. But—there is always a "but" in these cases—if the ball be struck more or less upon its side, or more or less hard, or more or less distant from the central point of the top cushion, it will, after contact with the cushion, fly off in a direction divergent from its true line of reflection. The amount of indentation made in the highly-elastic cushion ; the force, the integrity, or the swiftness of the impetus originally received from the cue, all modify the direction of the return angle. It is a fact, too, that the faster the table the less are we able to calculate on smaller angles ; but sufficient truth exists in the main axiom to enable the player to make it a rule of play, and to receive it as a principle governing Billiards generally. On the old list cushions in White's time, and, indeed, till within the last quarter of a century, the axiom as to the equality of angles might be taken as irrefragable ; but in our day we can only state it as a guiding rule, subject to more than the ordinary number of exceptions, which go to prove its general correctness.

From what has been said in this and previous chapters, we arrive at some safe general conclusions ; satisfied with which, the young player is enabled to practise with something more of mathematical certainty than he could do without knowing anything about them :—(1) a ball struck high and sharply travels swiftly ; (2) a ball struck low, and not too hard, travels slowly ; (3) a ball struck out of its centre assumes a direction, after contact, divergent from its natural angle of reflection ; (4) strokes from the shoulder give power at the cost of precision ; (5) to ensure correctness of direction, the cue must be held parallel to the flat surface of the table, and not raised at its butt in the act of striking ; (6) great variation in the striker's style of play is fatal to success ; (7) the equality of angles is an axiom so nearly true as to be a sufficient guide to the player ; (8) the natural angle of forty-five degrees is the master angle of Billiards, from which all the others proceed ; (9) the side-stroke is a simple modification of the straight, or full stroke, and can be controlled by the player ; (10) and that the harder and sharper the con-

cussion between two balls, at all states of impingement, except that of a full or a following ball, the wider the separation between them after contact.

These ten principles should be thoroughly learned, tested, and held by Billiard players. It is not enough that gentlemen should pursue their amusements in an idle *dilettante* style, for Billiards, Chess, Whist, and Draughts are games that admit of much real study and examination; and, as far as Billiards is concerned, the more scientifically you play the game the greater amount of gratification and pleasurable excitement you get out of it. I have no patience with those young fellows who are content to play without trying to improve. And there is this point to be considered too, that as you learn to play better you have less luck; for although Billiards is a game of mingled chance and skill, the proportion of flukes which fall to the really skilful player is comparatively much smaller than that which rewards the mere tyro; therefore, the element of competition aids the progress of the true amateur. Anybody, without being himself a player, can distinguish in an instant between a stroke of luck and a stroke of judgment and calculation. It is the inexperienced man who is lucky, the tyro who gains by the accidental combination of circumstances. But while this fact is, indeed, encouraging to the beginner, it also provides him with an actual incentive to practice, because he knows that luck is at best but a tricksy and fickle assistant, and that fortune to be won must be courted with assiduity, and difficulties to be conquered must be met with boldness and address.

ADVICE TO YOUNG PLAYERS.

No man can become a really good player without practice. But practice itself may be useless without it is properly directed. Before you rely on the side-stroke, get a thorough acquaintance with the principle of the regular hazards, made by dividing the object-ball, as already explained.

Losing Hazards are generally more useful to the player than Winning Hazards. If a Winning Hazard is made off the white ball, you have only two balls left on the table; and if made off the red ball, the latter has to be placed on the spot—the position on the table in which it is least likely to be useful; while in the former you may so calculate the strength of your stroke as to be able to place the object-ball in a favourite position for a second hazard or a canon. It is in

this succession of strokes that the strength of good play is to be found. The beginner is content to make a fairly difficult Losing Hazard without reference to the stroke that is to follow; the adept, on the contrary, makes his hazard with the intention of leaving the balls open for another stroke. What are called "good breaks"—that is, a succession of hazards and cannons—are accomplished not so much by any particular talent for hazard-striking, as by a nice calculation of the positions of the balls after each stroke. In this way the professional player is able to make thirty or forty off the balls whenever they lie in a favourable position for a break—as, for instance, when the red is at an easy angle with either of the top or side pockets. He then plays from baulk, and makes a succession of Losing Hazards, sometimes in the same pocket; or if he finds the angle getting too wide for the one pocket, he shifts the position of his own ball on the baulk, and loses it in the other. In this way he may make a dozen or more hazards off the red. It is a very common thing for a skilful player to make twenty hazards from baulk off two balls favourably placed—say the red at an angle with a top corner pocket, and the white lying square with a middle pocket. I have known players to wager upon scoring thirty off two balls so placed; and there are very few games in which the balls will not occasionally fall in one or other of these positions. When they do, the player should try all he can to make a good break, for in that lies the main secret of success. Luck will assist a player sometimes, but it will never stand a chance against calculation and skill.

Losing Hazards should be made with moderate strength—sufficient to carry your ball well to the pocket after contact with another ball, and to cause it to rebound from the cushion should you fail to make the stroke. If you strike your ball too hard, you altar the angle it would make if struck with moderate strength; and if too softly, you leave a hazard for your opponent if you miss the pocket. Moreover, you are very likely, if you play with too much violence, to drive the ball you aim at into baulk, even if you make the hazard you intended. But in these cases very much must be left to the judgment of the player. He must so regulate the strength of his stroke as to either drive the object-ball from its position to the cushion, so that it rebounds into baulk and out again, or so that it does not reach the baulk at all. This, of course, is to be regulated by its position on the table. Much depends on the place of the object-ball after your stroke. The player who makes a Losing Hazard and leaves the object-ball in

baulk deprives himself of the chance of a second hazard off that ball, because, being in hand, he cannot play at a ball in baulk.

When the red is close in the corner, and you wish to pocket yourself off it, you must play on to the cushion, and when your ball touches the red you will make the hazard. This is a very pretty stroke, which occurs frequently in each corner of the table.

The various positions of the white ball suggest a different mode of treatment for each stroke : as the "side" widens the pocket, so you must put on a little more or a little less, as the angle widens or narrows. There is nothing but practice for strokes like this.

Many players can make particular strokes with dexterity—some excelling in Losing Hazards, some in Winning Hazards, and some in cannons ; but it requires tact and practice to know which stroke to make at any particular time, and the best way of making it. Judgment and accuracy of calculation are indispensable to the playing of a thoroughly good game. By a "thoroughly good game" I mean such a one as enables a man to hold his own with more or less chance of success against all comers, regular professional players always excepted. Of course I do not expect any gentleman player to be able to contend on equal terms with professionals ; what I want to impress upon my readers is the necessity and value of always doing the best they can, and not being content with mere mediocrity. Not, however, that you should make yourselves slaves to Billiards—nothing would be much more absurd than that. An hour's careful play daily will make you a good player, especially if you are judicious in choosing your adversaries, and matching yourself, by preference, against good, rather than bad, players.

After what has been written, it is, perhaps, hardly necessary for me to warn you not to wager with the marker unless you want to lose, or to make him your equal ; not to play for heavy stakes with strangers, unless you have more money than wit ; not to keep your cue without chalk, unless you wish to lose the game ; not to be seduced into ordinary conversation during play, unless you have a particular desire to pay for the game ; not to run extraordinary risks for the sake of ordinary chances ; not to give up a game when there is the slightest hope of retrieving your position ; not to try showy strokes when plain ones will do as well (a man does not usually put on white kids and patent-leathers for a morning walk in the fields) ; and especially, *not to lose your temper and dispute the score !*

LA BAGATELLE.

FOR young people and ladies Bagatelle is perhaps as good a game as Billiards, if not better. It is easily learned, and requires little practice. A Bagatelle-board is found in houses where a Billiard-room cannot be fitted up; and in some other respects, that need not be mentioned, it is really superior to any of the table games advertised by the toy-makers.

A good Bagatelle-table can be purchased cheaply—for a tenth of the cost, indeed, of a Billiard-table. If you have no objection to a second-hand board, a really respectable one can be got, with cues and balls complete, for about £5. As a rule, avoid the folding-tables. They are seldom very level, and without the table is level, you cannot play well.

I need scarcely describe the Bagatelle-board: every one knows its shape, and the fact that the ivory balls are played with the cue into holes, instead of pockets, as in Billiards. Some of the larger Bagatelle-boards are, however, made with two pockets in addition to the holes, which give variety to the game.

Several games are played on the Bagatelle-board, two or more persons playing.

First, there is the nine-ball game—*par excellence* Bagatelle. The following are the rules :—

LA BAGATELLE.

I.—Any number of persons may play, whether singly or in "sides."

II.—Each player "strings for lead," and he who lodges his ball in the highest hole begins.

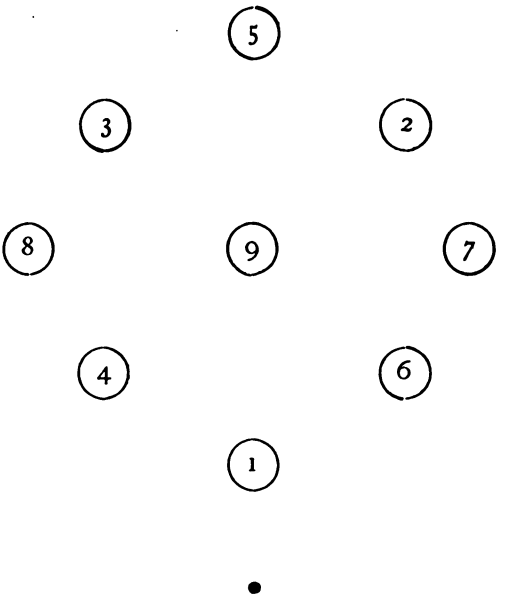
[In playing sides, one partner on each side only need string for the lead.]

III.—The player who wins the lead takes possession of the nine balls, and begins the game.

IV.—The black ball is placed on the spot in front of the first hole, and the player plays from the baulk by striking at the black ball, and endeavouring to hit it, or his own ball, or both balls, into a hole or holes.

V.—The black ball counts double into whichsoever hole it falls.

Sometimes a black ball and a red ball are used, both of which count double. The cups are numbered, and into whichsoever cup the balls fall, so many are counted for the player. The board is numbered thus :—



SPOT.

BAULK LINE.

The usual plan is to try to drop the black ball in the seven

or the eight, and the white in the opposite hole, and thus score twenty-two or twenty-three at one stroke.

VI.—The striker's ball must be placed within the baulk-line, and is struck with the cue at the black ball. The remainder of the balls are then driven up the board in like manner, and the sum total of the holes made is the striker's score.

VII.—Any number of rounds may be played for the game, as agreed on previous to the commencement of the game.

VIII.—The player (or side) obtaining the highest aggregate score wins the game.

IX.—Any ball that rebounds beyond the baulk-line, or is forced over the board, is not to be again played during that round.

SANS EGAL.

The next popular game is the French Game, or "Sans Egal," which is played by two persons, and is governed by the following

RULES.

I.—The person who takes the lead (decided as in "La Bagatelle") makes choice of four balls of either colour, and places the black ball on the spot, and commences by striking up one of his balls.

II.—The other player then strikes up one of his, and so on alternately.

III.—He that holes the black ball counts it towards his game, and also all that he may hole of his own.

IV.—If a player hole any of his adversaries' balls, the number is scored to the owner of them.

V.—The player who makes the greatest number of points in each round wins the game, and takes the lead in the next.

THE CANNON GAME.

Then comes the Cannon Game, played by two or more persons, in accordance with the following

RULES.

I.—Choice of balls and the lead having been decided, the

black must be placed on the spot, and the adversary's equidistant between cups Nos. 1 and 9.

II.—If the player strike both the balls with his own ball, he scores two. This is called a cannon. And if at the same time he hole either of the balls, he also scores the number marked in the cups—the black ball counting double.

III.—The striker continues to play as long as he scores.

IV.—There is no score unless a cannon be made.

V.—If either the adversary's or the black ball be holed, or roll beyond the baulk-line, they must be replaced on their respective spots.

VI.—The black ball must be always struck by the player's ball, or, in default of this, the adversary scores five. A miss also counts five to the adversary.

VII.—The game is 120 or 150, as may be agreed upon.

THE IRISH CANNON GAME

is played in the same way, only that the holes count, even if a cannon should not be made. Should the player's ball, however, in any case go into a hole, *it* counts to the adversary, and anything else made by the same stroke is forfeited.

When there are pockets to the table, the white and red balls pocketed count each two, and the black ball three. Sometimes three is counted for a cannon from the black to the red ball, and *vice versâ*, and two for a cannon from the white to a coloured ball, or from a coloured to a white one.

MISSISSIPPI

is a game played on the Bagatelle-board, with a bridge pierced with holes, marked with numbers, thus:—

RULES FOR MISSISSIPPI.

I.—Place the bridge close up to the circle.

II.—Each player to strike up one ball; he who gets the highest number takes the lead, and plays the nine balls successively.

III.—All balls must strike one of the cushions previous to

entering the bridge, otherwise the number will be scored to the adversary.

VI.—The game to be any number agreed upon before the commencement.

TROU MADAME

is a game played in the same way as Mississippi, except that the balls are played straight from the end of the board, through the arches of the bridge.

BEST WAY OF PLAYING BAGATELLE.

Hold the cue with a firm, but not too tight a grasp, and strike the cue-ball in the centre. A modification of the side-stroke may be well introduced occasionally; but the more advantageous play is to divide the object-ball. By it you may make such a calculation of the angles as will enable you to hole your ball with tolerable certainty. Beware of playing too hard—Bagatelle requires much less force than Billiards. If you play too hard, you will fail to make the stroke required.

Bagatelle is to Billiards what Draughts is to Chess, less scientific, but not less amusing. Some players are so clever as to be able to hole all the balls, with the coloured ball in the seven, eight, or nine, thus scoring 52, 53, or 54; or 60, 61, or 62, if two coloured balls be employed. But such play is rare. Practice is the grand secret of success in this and in other games and pastimes. There is a great deal of philosophy in pastime. It is a proper relief to the stern business of life; so I say cordially—"Vive la Bagatelle!"

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